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CHAIRMAN HEALTH RISK

Reorganization of Samsung Group Likely to Accelerate MITTONAL

FOREIGN INVESTMENT DEREGULATION

Leading to Huge Investments in Petrochemical Industry

ECONOMY & FINANCE

NAND FLASH FACTORY IN CHINA

Samsung's Global Tri-lateral Production System Completed

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Ferry Disaster and Controversy over National Renovation

The Sewol passenger ferry disaster is a tragic combination of incompetent politicians, corrupt bureaucrats and one immoral businessman. The political community has been blinded by power and negligent about

the safety of their people. The bureaucracy has settled for their vested interests. The owner of the Sewol ferry, who evoked public criticism because of immoral and illegal activities in the past, has been engaged in immoral deeds but left unchecked. In short, the catastrophe can be attributed to the systemic and structural backwardness of Korean society.

Discussions of "national renovations" are heating up under the circumstances. "It is too regretful that such a disaster broke out yet again due to our failure to fix the deep-rooted and accumulated evils in this society," President Park Geun-hye spoke, deploring the situation.

However, this is not the first time such a controversy was aroused. In fact, it has been repeated after every single national disaster such as the sinking of the Seohae Ferry, collapse of the Sungsu Grand Bridge, and the fire in the Daegu Subway. The government has announced each time that it would replace Ministers, shore up its supervisory functions, and eradicate the collusion between public servants and the business world. But none of these hollow, rough-and-ready reform measures have been successful, and the same mistakes are repeated with the source of the malaise intact.

These social ills are ascribed to an ignorance of safety widespread across society, and strong links between businesses and bureaucracy. Collusion and its negative repercussions, though having come to the surface in the form of the Sewol disaster at this time, are nothing new at all. Eight out of the 11 current and former chairpersons of Korean Register of Shipping, which is in charge of marine vessel safety inspections, are former officials of the Ministry of Oceans and Fisheries. Ten out of the 12 directors of the Korea Shipping Association, which is responsible for the loading of cargo and ship inspections, are former government officials, too. Such connection-based appointments have resulted in the privatization of public administration.

President Park declared that she would reform the bureaucracy in order to prevent further catastrophes, which should be a starting point for the renovation of national systems. Both direct and indirect causes of the accident, inappropriate actions during the course of the salvage, social wrongdoings, and the state of collusion will have to be rooted out no matter how much time it takes. If necessary, an organ in direct control by the President has to be set up, covering not only the government and the National Assembly but also private-sector experts, the police and the prosecution, academia and even the bereaved families. Reform led by bureaucrats themselves is never sufficient, as evidenced by history.

The souls of the victims can be consoled only when Korean society is saved from this swamp of backwardness, moral hazard, and cor-

ruption. The 304 victims cannot die

a useless death by any means.

Park Jung-hwan,

Publisher & Editor-in-Chief



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Chairman Health Risk

Reorganization of Samsung Group Likely to Accelerate with Chairman's Heart Attack

Samsung Group chairman Lee Kun-hee was rushed to the emergency room due to acute shortness of breath on the night of May 10. Under the circumstances, his sudden health problems are likely to pose the most significant risk in the corporate succession process and the group's Mach Management drive, which is taking the form of the reshaping of the Future Strategy Office and business reorganization.

According to Samsung Medical Center, he suffered a sudden heart attack on May 10 and was carried to the emergency room for CPR and other operations before being moved to the convalescent ward. This is the first time that he received CPR for heart attack symptoms, although he received some medical treatments in the past for respiratory problems. In addition, he was moved first to Soonchunhyang University Hospital near his home, not Samsung Medical Center, which illustrates the urgency of the situation.

The chairman is 72 years old now. He underwent lung cancer surgery in the United States in the late 1990s, and concerns over his health have been posed regularly since then. He has spent winters abroad since that time in countries with warm winter climates, in order to prevent the recurrence of the disease. This year, he was out of Korea for about three months between early January, right after the group's New Year's Cer-

emony, and April 17.

Chairman Lee has suffered from various other illnesses as well. For example, in August last year, he stayed in Samsung Medical Center for 10 days as his cold led to pneumonia symptoms. In March 2009, he received four days of medical treatment due to bronchitis, and was hospitalized for over a week for flu in January 2008. Samsung also had to postpone a banquet commemorating the 20th anniversary of the declaration of New Management due to his pneumonia last year. His health problems have added to the uncertainties on the part of the entire Samsung Group on repeated occasions in this way.

The ambitious Mach Management drive of the group is likely to be affected by the hospitalization as of late, too. Since his return to Korea on April 17, he met its executive members at the main office building in Seocho-dong every Tuesday to be briefed on major issues and set business directions in person. These days, the Samsung Group is moving to speed up its business reorganization and seek new growth opportunities in the framework of Mach Management, focusing on high-intensity innovation. It is in this context that he reassigned the managers of the Future Strategy Office, which can be compared to the control tower of the group, immediately after his return, and announced the listing of Samsung SDS on May 8 of this year.

However, the overall processes are expected to be hindered at least to some extent by his health problems. "The first aid was faultless, like the operation at the Samsung Medical Center, and we are looking forward to a smooth recovery," a Samsung representative explained, but it appears to be difficult for the chairman himself to take care of major issues for a while.

With the situation as it is, much attention is being paid to the Samsung Group's subsidiary and ownership restructuring process. Samsung has accelerated business reorganization since the second half of last year by spinning off the fashion business unit of Cheil Industries to Samsung Everland, which functions as the de facto holding company of the group, and merging Cheil Industries with Samsung SDI. Then, it consolidated Samsung SNS with Samsung SDS and sold Samsung Corning Precision Materials to Corning, while combining Samsung General Chemicals with Samsung Petrochemicals.

More recently, it began to restructure its financial subsidiaries such as Samsung Securities and Samsung Life Insurance. The Samsung Life Insurance shares owned by non-banking affiliates like Samsung Electro-Mechanics, Samsung Fine Chemicals, Samsung SDS, and Cheil Industries have been disposed of while Samsung Life Insurance is gathering the shares of its financial subsidiaries such as Samsung Fire Insurance and Samsung Asset Management.

Samsung SDS, whose shares are owned by the chairman and his family members, is planned to be listed before the end of this year. Industry insiders' consensus is that this has to do with the third-generation ownership of the group. According to them, Samsung SDS is likely to play the most important role along with Samsung Everland in the succession process. Samsung Electronics Vice Chairman Lee Jae-yong, Hotel Shilla President Lee Bu-jin, and Samsung Everland President Lee

Seo-hyeon own 11.25 percent, 3.90 percent and 3.90 percent of the shares of Samsung SDS as of now.

In the meantime, some of them point out that the business reorganization and the removal of cross-shareholding that started last year are not just measures for Mach Management, but a kind of groundwork for third-generation ownership to protect against the health problems. "Such moves are sure to enhance the competitiveness of the Samsung Group's business as explained by itself, but may also allow for the possible changes in the way of business derived from the chairman's

health conditions," said one of them.

This is why most of them predict that the reorganization will gain speed down the road before his conditions are further exacerbated. It is said that the announcement of listing of Samsung SDS within this year will result in a faster restructuring of the heavy industry, construction and financial arms. At the same time, inter-subsidiary share sale and exchange for the removal of circular equity investment and the conversion of Samsung Everland into a holding company are forecast to be accelerated.

Offensive Buying of Samsung Stocks

Stock Prices of Samsung Group Subsidiaries Up on Management Succession Expectations

The stock prices of the subsidiaries of the Samsung Group have risen a lot despite the news about chairman Lee Kunhee's sudden hospitalization.

In the past, the prices used to fall every time the deteriorating health conditions of the Chairman were reported. Experts say that the pattern is different this time, since the news is not new at all. "It is expected that the group's preparation for third-generation ownership, which is taking the form of the rearrangement of the financial arms' shares and the announcement of the listing of Samsung SDS within this year, will speed up under the circumstances, and this is boosting the share prices," one of them explained, adding, "The owner's family needs to raise its share ratios in Samsung Electronics and Samsung C&T, which are predicted to act as the holding companies, and investors are anticipating some gain during the course."

Samsung Electronics and Samsung Life Insurance, both of which showed a significant gain on May 12, are likely to have a central role in the ownership structure reform. At present, Samsung Everland owns 19.4 percent of Samsung Life Insurance shares, and Samsung Life Insurance is in control of Samsung Electronics with a share ratio of 7.2 percent. Likewise, Samsung Electronics is governing Samsung SDI and Samsung

SDI is controlling Samsung C&T. It is forecast that Samsung Electronics and Samsung C&T will be divided into a business unit and the holding company, while Samsung Life Insurance assumes the role of

Equity Structure of Samsung Electronics (Unit: %)



an intermediate holding company through the corporate succession process.

In this case, the stock prices of the companies are likely to go up based on the low share ratio of the largest shareholders' family members in Samsung Electronics and Samsung C&T. This is because not only the owner's family but the entire Samsung Group will move to raise the percentage in order to prevent it from dropping during the succession. According to some market participants, Samsung Electronics Vice Chairman Lee Jae-yong and Hotel Shilla President Lee Bu-jin will expand their shares in the key subsidiaries including Samsung Electronics and Samsung Life Insurance by reducing those in Samsung SDS.

In the meantime, foreign hedge funds are predicted to rake in Samsung Electronics shares with the Chairman's health conditions getting worse. When Apple CEO Steve Jobs passed away, Steel Partners bought a number of shares of Apple and tried to be involved in the management through shareholder proposals. Steel Partners succeeded in getting shareholder return measures such as increased dividends and treasury stock purchases. Then, it took the profits as the stock price increased.

"Relatively aggressive hedge funds tend to take advantage of owner risks in management rights disputes," said a major asset management firm, continuing, "Samsung Electronics' market cap is smaller than that of Apple, and so is the share ratio of the owner's family, which leads to a higher possibility of foreign hedge funds making a move in this direction."

Some foreign securities firms say that Samsung Electronics will remain in the limelight for the time being, because it has much room for upward movement even when the corporate

Equity Structure of Samsung T&C (Unit: %)



structure reform issue is ruled out. "Recently, TSMC, one of the major rivals of Samsung Electronics, gained a lot, and an increasing number of global investors are turning their eyes toward Samsung instead of the Taiwanese company," said CIMB.

Life Satisfaction

Koreans' Satisfaction with Living Standards Ranks 25th of 36 OECD

Countries

Koreans in general are less content with their living standards than most of the people in the other OECD member nations.

The OECD released the Better Life Index 2014, which consists of 11 evaluation items, on May 8 (local time). According to the data, Korea recorded 6.0 points in the Life Satisfaction category, while the category average was 6.6 for the 36 surveyees including the 34 OCED member countries, Russia and Brazil.

Korea ranked 25th in this section, followed by Italy, Slovenia, and Japan. Switzerland, Norway, and Denmark were on top of the list with scores of 7.8, 7.7 and 7.6 respectively. Spain,



which went through a severe fiscal crisis recently, was right ahead of Korea.

In the Work-Life Balance section, Korea ranked 34th out of the 36 countries, followed by only Mexico and Turkey. The OECD attributed the low rank to the annual average working hours of 2,090, which is far longer than the OECD average of 1,765.

The Better Life Index measures the nation-specific level of living standards by assessing the 11 items of housing,

income, employment, community activities, education, environment, civic participation, health, life satisfaction, safety and security, and work-life balance. The first Better Life Index was released in 2011

Korea is in the upper ranks in education, civic participation, and safety and security, while remaining below average in the sections such as life satisfaction, work-life balance, health, environment, and income.

Global Flows

Korea's Globalization Falling Behind

A research study indicates that the Korean economy's globalization ranks 20th, falling behind Malaysia and Poland that are much smaller in economic size.

According to a report titled "Global Flows in a Digital Age" put forth on May 7 by research firm The McKinsey Global Institute (MGI), Korea ranked 20th in global connectedness, trailing behind Malaysia (18th) and Poland (19th) out of 131 countries in the world.

The rank was based on how much a nation contributed to international flows in goods, services, finance, human resources, and data in 2012.

In the same year, Korea's Gross Domestic Product (GDP) ranked 15th with a total overseas trade size of US\$1.4 trillion, 123 percent of the GDP.

The local economy stood 7 in rank in goods, 14 in service, but fell behind in the people segment such as immigration, travel, and overseas education by ranking 58, while in data and finance it ranked 34 and 25 respectively.

Japan ranked 21st, behind Korea, due to the former's lack of people-based transactions.

The most connected country turned out to be Germany, followed by Hong Kong and the U.S., to be trailed by Singapore, England, Holland, France, Canada, Russia, and Italy. China came in 25th.

The report estimated that global flows of goods, services, and finance in 2012 reached \$26 trillion, or 36 percent of global GDP, and global flow could double or nearly triple by 2025 to reach



US\$54 to 85 trillion.

In addition, the report found that economies with more connections see up to 40 percent more benefits from participation than do less connected economies. It further pointed out that knowledge-intensive flows account for half of global flows, and they are gaining share. For instance, knowledge-intensive goods flows are growing at 1.3 times the rate of labor-intensive goods flows.

Korea-US Trade Summit

Is Complete Implementation of KORUS FTA the Prerequisite for Korea to Join TPP?



U.S. President Barack Obama met major Korean entrepreneurs on April 26 at the Grand Hyatt Hotel Seoul.

The meeting was hosted by the American Chamber of Commerce in Korea (AMCHAM) and attended by the Federation of Korean Industries Chairman Heo Chang-soo, Korea Chamber of Commerce & Industry Chairman Park Yong-man, Korea International Trade Association Chairman Han Deok-soo, Hyundai Motor Group Chairman Chung Mong-koo, and Samsung Electronics Vice Chairman Lee Jae-yong. "I will provide the maximum assistance for Korean companies investing in the United States," said the President, asking the participants to step up their investment in his country.

He also mentioned that the KORUS FTA is definitely a win-win agreement, but there are some things still left to be handled. "Given South Korea's interest in the Trans-Pacific Partnership, fully implementing KORUS also is the single

most important step that South Korea can take now to show that it's prepared to eventually meet the high standards of the TPP," he explained. Experts interpret the remark as his stance that Korea's participation in the TPP, or Trans-Pacific Partnership, should follow the complete implementation of the KORUS FTA.

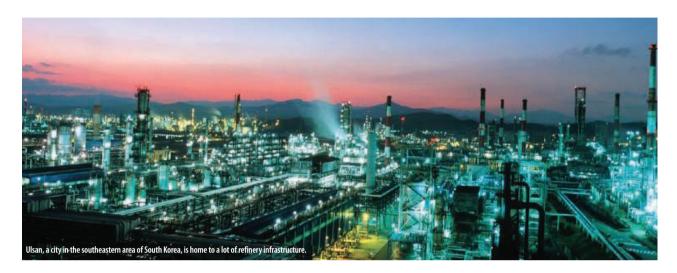
President Barack Obama picked automobiles, information communication, and organic food as the fields where fair competition should be guaranteed for American companies. "It cannot be denied that the free trade deal leads to greater exports and trade volume, but some things still have to be dealt with for fair competition in such fields as automobiles, intellectual property, organic food, and the like if the FTA can be fully implemented and the positive effect can be maximized," he emphasized. It appears that he, by saying so, wants a delay of the provision of the subsidies for low-carbon vehicles scheduled for next year and a simplification of the process for the place of origin certification of agricultural products exported from the United States.

The previous day President Obama had a summit meeting with President Park Geun-hye to work more closely together for a perfect implementation of the KORUS FTA and an expanded application of the rules of origin, which was stressed by the U.S. government as a prerequisite for Korea's accession to the TPP. The U.S. had complained of Korea's strictness in applying the rules and claimed that it had hindered the export of agricultural goods.

However, the U.S. is likely to show a more positive stance as to Korea's participation in the TPP with the problem having been tackled at least to some extent through the meeting. Korea has expressed its interest in the TPP and is currently going through the second round of preliminary negotiations to this end.

Foreign Investment Deregulation

Leading to Trillion-won Investments in Petrochemical Industry



A joint venture between the SK Group and a Japanese company finally came to fruition after three years of negotiations. It is the first case in which companies have become beneficiaries of the Foreign Investment Promotion Act (FIPA), which was enacted by the National Assembly last year, after many twists and turns.

The Ministry of Trade, Industry and Energy (MOTIE) announced that it approved SK Global Chemical's ownership stake in Ulsan Aromatics in its first foreign investment committee meeting on April 24. Ulsan Aromatics is a chemical plant making paraxylene (p-xylene), which was founded with investment from SK Global Chemical — SK's affiliate — and the JX Nippon Oil & Energy. The Korean company holds a 55.9 percent stake in the joint venture, and the Japanese firm 44.1 percent.

The investment partnership started in 2011, but almost foundered owing to the Monopoly Regulation and Fair Trade Act. The law stipulates that when a holding company's subsubsidiary creates a great grandson subsidiary, the sub-subsidiary is required to own a 100 percent stake in the great grandson subsidiary. The provision is aimed at preventing conglomerates from making cross investments. Petrochemical companies, on the other hand, have maintained that a joint venture between local and foreign firms is necessary for a several-trillion-won project.

In May 2013, the government accepted the industry's suggestion, introduced a measure to revitalize investment for the first time, and tried to amend the FIPA. Finally, the revised bill was narrowly passed by the National Assembly at a plenary session at the end of 2013.

The petrochemical industry anticipates that similar types of business partnerships will continue. Currently, GS Caltex is working to enlarge an annual 1 million ton p-xylene plant by investing about 1 trillion won (US\$960 million) in the facility in Yeosu, South Jeolla Province, along with Japanese firms Showa Shell and Taiyo Oil. In the past, the joint project did not go smoothly because of FIPA, but it has reportedly been gaining momentum after the revised law was put into effect. SK Lubricants, which is another sub-subsidiary of the SK Group, is also pursuing a joint venture with JX Nippon Oil & Energy.

In the meantime, the foreign investment committee also passed a plan that designates a site for Legoland in Chuncheon, Gangwon Province as a separate foreign investment region. The theme park is going to be exempted from paying business taxes for seven years after it turns profitable. The MOTIE is also discussing a way to provide support for building infrastructure including roads with relevant government agencies such as the Ministry of Culture, Sports and Tourism. MOTIE expects that Legoland will generate 1,600 jobs after 487.2 billion won (US\$467 million) of investment.

In addition, the ministry revealed its goal to attract US\$17 billion of foreign investment this year, which is the highest amount ever invested. It is also planning to repeal or ease FIPA's 21 regulations after its review. The total amount of foreign investment increased 49.1 percent year-on-year to reach US\$5.6 billion in the first quarter. Kim Jae-hong, vice-minister of the MOTIE, stressed, "We will definitely relax regulations on foreign investment companies, which account for 20 percent of our country's total exports."

Owner's Malpractice

Chonghaejin Marine Company under Suspicion

of Offshore Tax Evasion

The Public Prosecutors' Office announced an investigation into former Semo Group CEO Yoo Byeong-eon, de facto owner of Chonghaejin Marine Company that ran the sunken Sewol ferry. It is going to launch an investigation into the owner's property concealment, tax evasion, lobbying, embezzlement, and misappropriation allegations, with the entire nation being grief-stricken since the sinking of the ferry.

However, the investigation is not only motivated by the country's deep anguish, but by a series of suspicions and testimonies that have come to the surface. These days, the former CEO's and his family's past asset accumulation is raising a lot of doubts. The combined value of the assets of their 30 or so subsidiaries in Korea amounts to 560 billion won (US\$538 million), while about half of it is liabilities. In addition, the

stocks and real estate of the family members are considered to be worth approximately 240 billion won (US\$230.9 million).

It is also said that
the family members have much more
properties abroad than what they reported to the National Tax Service and the
auditing authorities. The Public Prosecutors' Office suspects that they concealed
most of their wealth and were engaged
in offshore tax evasion during the asset
building process. Testimony has also
come out supporting such allegations.

The investigation authorities are planning to look into the entire range of such suspicions, and the financial and taxation authorities are looking into their alleged malpractice in foreign exchange transactions. Similar suspicions have



been raised against Chonghaejin Marine Company as well.

The former CEO is one of the masterminds of the Odaeyang scandal that broke out back in 1987, in which 32 cult members committed collective suicide. At that time, he was under suspicion of leading the cult and accumulating huge personal debts. The prosecutors' office failed to prove the former, and he was jailed for only four years. People became less and less interested in his family and company before the recent sinking of the Sewol ferry.

Teenage Legacies

SNS Messages Become Precious Clues in Korean Ferry Disaster

Although a few weeks have passed after the Sewol ferry began to sink, it is still unclear what was happening inside the ship at the time of the accident, or when the ferry changed direction suddenly. But messages sent through KakaoTalk by high school students on the ferry are likely to give an important clue that can clarify the case.

Out of 476 ferry passengers, 323 were high school students who most likely used KakaoTalk frequently. Therefore, it is more likely that they described the situation through text messages using the mobile messaging platform before and after the accident.

The police and prosecution are also

investigating the captain and 14 other surviving crew members, but their testimonies are different due to the confusing and stressful events. Thus, the analysis of text messages sent via KakaoTalk, which will be used for the first time in disaster investigations, is expected to play a huge role in reconstructing the circumstances of the accident.

According to the prosecution on April 22, the joint investigation team of police and prosecutors obtained more than 300,000 messages received and sent by 476 passengers and crew members from 6:30 pm on April 15 to 18 through its search of Kakao's headquarters between April 20 to 22.



In fact, a high school student sent a message to family, saying, "The ship has already listed, but I was told to remain where I was." The message was sent at 9:25 a.m. on April 16, just 30 minutes after ferry requested to be rescued for the first time.

The investigation team believes that it will be possible to reconstruct a timeline of the disaster after analyzing the messages. The team also anticipates that they will be able to figure out if crewmembers' testimonies are true or inconsistent by comparing their statements with Kakao Talk conversations.

Wage Disparity

Temps Received 35.8% Less Salary than Permanent Workers Last Year



Temporary workers of Hyundai Motor's Ulsan plant demonstrate against wage disparity in November 2010.

The annual salary of non-regular workers in Korea was 64.2 percent of their full-time counterparts in 2013. The speed at which the gap narrows has decreased significantly last year, though it is still narrowing.

The Ministry of Employment and Labor announced on April 28 that tem-

porary and regular workers' total wages per hour were 11,259 won (US\$10.91) and 17,524 won (US\$16.96) as of June last year, respectively.

The ratio of the former to the latter increased for four years in a row, from 57.2 percent in 2010 to 61.3 percent, 63.6 percent, and 64.2 percent in subsequent years. By gender, the ratio fell 0.7 percentage points to 65.0 percent for males and 0.8 percentage points to 73.9 percent for females.

The combined average hourly wage increased 7.3 percent last year to 16,067 won. The rate of increase was 6.8 percent for full-time workers and 7.9 percent for temporary.

Gender Discrimination

Men at Large Companies Paid 30 Million Won More Annually than Women

A ccording to business reports of the nation's top 20 listed firms (financial companies excluded) on April 13, the median earnings of male employees of Korea's 19 largest companies (SK Networks excluded) was 86 million won (US\$82,732) last year. This number is 1.47 times as high as the 58 million won (US\$55,796) median of female workers, and the annual income difference between genders amounts to approximately 30 million won (US\$28,860).

The biggest gender wage gap was reportedly in Dawoo International, as male median yearly earnings were more than twice the figure for women in 2013. Daewoo Shipbuilding & Marine Engineering (1.83 times), S-Oil (1.78 times), and Korea Gas Corporation (1.71 times) were said to have a large income difference. On the other hand, the gender earnings disparity of KT (1.15



times), the Hyundai Motor Company (1.22 times), Kia Motors (1.30 times), POSCO (1.36 times), and Samsung Electronics (1.38 times) was reportedly smaller than other companies.

The average annual salary of men working at Samsung Electronics was 112 million won (US\$107,744), which is the highest among the top 19. Hyundai Motor paid its female employees the highest last year, 78 million won (US\$75,036) on average.

The gap between men and women in the number of years of service was six on average, but there were big differences per company.

Non-wage Growth

Korea Sees Rising Production, but Real Wage Cuts



Solar Wind Korea's photovoltaic module production line is fully

Productivity growth without an increase in real wages has been most noticeable in Korea among the major OECD countries.

In his report on an international comparison of productivity growth without real wage increases published on April 27, Park Jong-kyu, a researcher at the Korea Institute of Finance, pointed out that real wages and labor productivity worked in tandem before the global financial crisis of 2008, but the gap has widened since then.

The nation's real wages (contribution to social security included) decreased by 2.3 percent between 2007 and 2012. In contrast, the number went up 19.4 percent from 1997 to 2002, and 17.6 percent from 2002 to 2007. Among 28 OECD countries, only 11 countries experienced more wage cuts than Korea in 2012 (or 2011) compared to 2007.

However, if Portugal, Italy, Ireland, Greece, and Spain — the five most atrisk European economies during the European sovereign debt crisis — and 10 nations outside the top 40 in GDP per capita are excluded, only the UK, Japan, and Israel suffered more from a steeper rate of decline in real wages than Korea.

In comparison, Korea's labor productivity, which is calculated by dividing GDP by the number of workers, rose 9.8 percent between 2007 and 2012. Among 18 countries, the nation's productivity rose most rapidly during the period.

48 Years Coming

Hyundai Motor to Abolish Overtime Work Starting Next Year



The Hyundai Motor Company's headquarters in Seoul is located in the Yangjae district, along with the offices of Kia Motors and the two companies' parent corporation, Hyundai Motor Group. (Photo by Chu via Wikimedia Commons)

Hyundai Motor is working to eliminate the overtime work of production workers starting in 2015. It means

that a two-shift system will be changed to an eight-hour shift, and thus overtime work will be abolished for the first time, 48 years after its founding. Hyundai's decision is expected to affect a reduction in working hours, which has yet to become law owing to a conflict between unions and the management.

"There will be no problems with the introduction of the new shift system if a sufficient quantity is secured through an improvement in productivity," said an official high in Hyundai Motor on April 27. After the introduction, the working hours are expected to be reduced by more than 2 and a half hours per day and 290 hours per year.

However, it is going to be hard for labor and management to reach a final agreement, since both sides are likely to have different opinions on production problems relating to the scale of expanding manufacturing output per hour and the issue of maintaining the current wage level.

Urgent Labor Issue

Auto Parts Manufacturers Concerned over New Ordinary Wage Standards



Representatives of auto parts manufacturers partnering with Hyundai Motor Company, Kia Motors, GM Korea and Ssangyong Motors held a press conference on April 15 at the main office of the Korea Auto Industries Corporation Association (KAICA) located in Seoul, demanding that the new bill for an expanded scope of ordinary wage be revised in a rational way that does not strangle the auto parts industry.

"The government and the political community have to suggest negotiation

standards and guidelines so that the labor-management talks over the new wage system can be smooth, while defining the obligation of labor unions' coopera-

tion to prevent any excessive backdating of the bill," KAICA President Shin Dal-seok emphasized. He added, "When regular bonuses are included in the ordinary wage, the auto parts industry has a burden of 591.4 billion won [US\$569.9 million] of additional labor costs each year, with the labor cost growth rate reaching as high as 9.4 percent, and the amount will snowball year after year."

He also mentioned that the increase in labor cost would result in weaker price competitiveness, which, in turn, would lead to an increasing ratio of buy-back, that is, imports from overseas manufacturing bases to Korea. "According to our estimates, 7,516 jobs will disappear every year due to the expanded ordinary wage and employment costs, and the technical investment is expected to fall by 13 percent, while exports decline by 375.5 billion won [US\$361.9 million] a year," he continued.

Another concern is side effects such as the shrinkage of the domestic market and a widening gap between the wage levels of automakers and auto parts manufacturers. The president pointed out that this would undermine the joint growth policy of the government to cause the entire auto industry of Korea to collapse in the long term.

He also expressed his grievances as to ongoing discussions for shorter working hours. "The production volume falls 13.7 percent and the monthly average salary is lowered by 300,000 won if weekly working hours are reduced from 68 to 52 hours," he stressed, adding, "In the end, industrial competitiveness will be compromised to lead to less exports, more idle facilities and large-scale layoffs."

Promotion of Ventures and Startups

What Are
Accomplishments
and Future
Tasks of Venture
and Startup
Promotion Plan?



It has been a year since the current government announced its so-called May 15 Plan for the realization of the creative economy through the promotion of venture firms and startups. During the past year, various policy measures have been poured out for the revitalization of angel investment and M&As, resulting in a rapid increase in the number of newly-established corporations and the concentration of capital into the venture and startup market. However, it has also been pointed out that the investment recovery and support functions need to be further reinforced.

These days, an increasing number of startups are benefiting from the policy. More and more young entrepreneurs are dreaming of turning their businesses into a second KakaoTalk. According to the Korea Venture Investment Corporation, the number of those younger than three years and invested by the investment associations based on the government's fund of funds increased from 185 to 351 between 2011 and last year.

At the same time, more born-to-be-global startups are doing successful business abroad. Global venture investors are paying greater attention to them instead of their traditional clients in Silicon Valley, Israel, and other places.

The government completed the introduction of most of the 42 policy packages proposed on May 15, with some exceptions such as the initiation of equity-type crowd funding, and these have been in place since the end of last year.

For example, the tax deductions for angel investment has been expanded to 50 percent, and companies invested in by angel investors have been allowed to be recognized as venture firms. A series of tax-related policies have been adopted in the form of tax benefits for tech-oriented M&As. The reinforcement of policy finances in the form of the Future Creation Fund and Growth Ladder Fund is already showing some tangible results. The Future Creation Fund is approximately 500 billion won (US\$487 million) in size, including resources from

the private sector, and it has been spent for the promotion of early-stage firms. The Growth Ladder Fund, which is to supply financial resources for the conversion of startups into enterprises of middle standing, has reached two trillion won (US\$1.9 billion) through private-public matching.

The Small & Medium Business Administration and Korea Venture Investment Corporation announced on April 25 that they would raise venture funds worth two trillion won (US\$1.9 billion) this year for greater venture and startup investment. The amount is about 30 percent larger than last year's 1.5374 trillion won. The government will invest 574 billion won (US\$559 million), 32.6 percent up from a year earlier, via its fund of funds. In addition, the Secondary Fund of 120 billion won (US\$116 million) will be raised to assist in investment recovery and create a virtuous cycle of corporate foundation, growth, recovery, and retry.

Venture investment in Korea amounted to 1.3845 trillion won (US\$1.3485 billion) as of the end of last year, showing a 12.26 percent year-on-year gain. The upward movement is continuing this year, too. Quarterly venture investment totaled 268.8 billion won (US\$261.9 million) with a year-on-year growth rate of 25.2 percent. In other words, the shortage of funds in the venture and startup market has been addressed to a large extent.

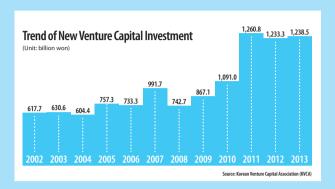
Investment Recovery and Startup Assistance Functions Still Weak

That being said, the sector still has a long way to go to foster the ecosystem of smooth investment circulation.

Although the quarterly number of newly-established corporations exceeded 20,000 for the first time in the first quarter of 2014, corporate foundation by the young generation is still slow in view of the wide variety of support measures. "Things have been improved a lot than in the past, and sufficient financial resources are now available for promising future entrepreneurs," said Ko Yong-ha, chairman of the Korea Business Angel Association, adding, "Nevertheless, the pool of excellent human resources is still shallow."

Other urgent issues include the flow of capital to actual investment and the reinforcement of the recovery side. This is why venture capital stresses the importance of policy finance, Korean firms' overseas market penetration and investment, and boosted M&A activities. Investment recovery is one of the most important links for reinvestment and re-foundation. However, the KOSDAQ, a prototypical venture investment tool, is moving sideways. So is the Korea New Exchange (KONEX) for pre-KOSDAQ companies.

Under the circumstances, venture capital firms prefer recovery through direct listing on KOSDAQ to KONEX,



though this takes more time due to the latter's low trading volume and weak recovery function. "The government has yet to come up with its final stance as to the various issues ranging from the listing of preferred stocks to the designation of common advisors of securities companies and venture capital," an industry source explained, continuing, "How can we go for listing with the uncertainties as they are?"

Expert consensus is that the government should be more involved to raise the effectiveness of its market policy. Capital Market Institute Research Manager Kim Kap-rae remarked, "The May 15 Plan has a significant meaning as a set of comprehensive policies promoting the smooth circulation of venture funds and defining what the creative economy is." He also advised, "What matters now is continuous feedback to ensure the intended results of the systems, that is, solid growth of the invested companies and subsequent finding of new beneficiaries."

Korea Venture Investment Corporation representative Jeong Yu-shin agreed by saying that qualitative rather than quantitative growth by means of M&As, overseas market penetration, and investment should be the center of the focus from now on. "The fact that venture investment reached a new high last year implies that qualitative growth has been made to some extent," he mentioned, continuing, "If the policy up to this moment was to boost investment in ventures and startups, those for the future should concentrate on investment recovery and re-investment."

In this vein, the Small & Medium Business Administration has carried out a performance evaluation on the government policy with the Korea Venture Business Association, the Venture Capital Association, and end users of the related policy. It can be considered as a post-evaluation of the May 15 Plan, through which the degree of progress of the measures can be quantified. The government, well aware of this point, is paying much attention to the assessment result. The administration is also planning to put forth follow-up venture promotion programs in late May based on the result.

Interview with SMBA Administrator

Nurturing Ventures and Startups to Be Driving Forces for Creative Economy

The Park Geun-hye administration announced its so-called May 15 Plan for the realization of the creative economy through the promotion of venture firms and startups a year ago. During the past year, a lot of policy measures have been set up for the revitalization of investments in ventures and startups. Due to such efforts from the government, the industry has seen a rapid increase in the number of newly-estab-

lished corporations, including startups.

BusinessKorea had an exclusive interview with Han Jung-wha, Administrator of the SMBA, who has been trying to implement the Creative Economy by developing and nurturing ventures and startups. Here are excerpts from the interview with him.

It has been a year since you took office as the administrator of the

Small and Medium Business Administration (SMBA). Why don't you give your thoughts on your first anniversary?

I have been feeling a great responsibility and spending a busy year with the SMBA's presence increasing as the middle-standing enterprise policy was transferred to my organization, and I myself was designated as a new participant in the Cabinet meetings.

All the way since inauguration day, I have been committed to the incumbent government's pursuit of a creative economy. The SMBA has come up with various policy plans to assist in the establishment of venture and start-up companies and the growth of middle enterprises and small businesses while striving to provide them with a second chance. Also, we have focused our policy capabilities on a perfect balance between the creative economy and economic democratization.

In addition, our staff members have met with small entrepreneurs at least three times each week so that their voices can be directly reflected in our policy. We have held a total of 113 discussion sessions and on-site visits since the day we began.

As a result of such efforts, the venture investment increased from 1.2333 trillion won [US\$1.2016 billion] to 1.3845 trillion won [US\$1.3499 billion] between 2012 and 2013, and the number of newly-founded corporations and exports from small and mid-size enterprises (SMEs) and companies of middle standing jumped from 74,162 to 75,574 and from US\$175.7 billion to US\$184.6 billion during the same period, respectively.

You have mentioned the balancer theory for the promotion of the growth of SMEs. Please define it for us.



Korea has achieved excellent results during its industrialization process, but social conflicts have been intensified during the course due to efficiency-driven market competition.

Inequality has been increasing between major corporations, SMEs, and small businesses, and those that lost out in the competition with big businesses have fallen into the poor class. This has resulted in an increase in social costs and a decline in productive investment.

My creative balancer theory started from this point, so that creativity and balance can be sought after at the same time in overall SME policy. The purpose of the theory is to allow every individual economic entity to show their creative capabilities to the maximum for job creation and the rebuilding of the middle class, while addressing social asymmetry by means of economic democratization. It is important to note that this does not mean leveling down, but a balance oriented toward market expansion based on enhanced creative capabilities.

The SMBA has launched various projects to support start-ups and venture firms. Please summarize the outcome of the policy.

The administration has moved ahead with the Venture and Start-up Financing Ecosystem Support Plan since May 2013 and the Comprehensive Re-challenge Measures for SMEs since October 2013 to that end.

The Venture and Start-up Financing Ecosystem Support Plan is characterized by shifting the focus of investment in venture and start-up companies from loans to investment, so the beneficiaries can feel a lighter burden of failure. Tax incentives are provided for angel investors and policy funds have been set up for start-up investment. Additionally, M&A regulations have been repealed to facilitate intermediate investment recovery, and tax benefits are given to M&A deals for technology acquisition.

The Comprehensive Re-challenge Measures for SMEs are a set of programs for potential entrepreneurs to not hesitate in starting their own businesses out of concerns over failure. The specific measures include the exemption of joint surety for founders, tailored follow-ups for more vulnerable SMEs, and corporate business management systems for crisis handling.

The measures have created positive changes in the venture and start-up ecosystems. For example, the number of newly-founded corporations reached 75,574 in 2013, which is the highest since the first compilation of statistics in 2000. That of college start-up clubs jumped from 1,222 to 1,833 between 2012 and 2013, as well. Venture investment set a new high since 2001, and the number of registered angel investors soared 86.6 percent year-on-year to 4,870.

This year, we will work with angel investors qualified in terms of investment performance and career so they can act as not only an investor but also a guide for the others that have financing difficulties. R&D support will be provided for firms invested in by such angel investors as well. 150 exemplary corporate start-up models are going to be selected for up to one billion won in subsidies for three years, while at least 10,000 young future CEOs will be nurtured by 2017.

What plans does the SMBA have for the promotion of Korean-style hidden champions and local SME's overseas market penetration?

Globalization is not an option to cope with the rapidly-changing trade environments as of late. Still, SMEs in Korea have a long way to go in this aspect. 78.3 percent of them, or 310,000 out of 397,000, were doing business mainly in Korea as of 2013, and the ratio of exports by SMEs to the national total was limited to 17.3 percent. 83.5 percent of exporting SMEs recorded annual exports of less than US\$1 million in that year, too.

Under the circumstances, we will provide more market-specific measures to accelerate overseas market penetration by small firms. The Export Business Service System, which is introduced this year, is one such example in which design, consulting, and interpretation assistance is provided in a package.

Also, exporting incubators are going to be run in Bangkok, Hanoi, and many more Southeast Asian markets as well as various provinces in China. Wider cooperation is planned with the Middle East and other emerging markets.

The inter-ministerial Korean Hidden Champion Promotion Strategy, which includes specific businesses and policy plans for each corporate growth stage, will be made available in July this year. It covers the establishment of standards for Korean-style gazelle companies and the building of a phased-growth ladder for the conversion of hidden champions into Pre-World Class and World Class 300 companies.

A hidden champion can be defined as a small firm not widely known to the public yet dominating the global market with great competitiveness.

According to Simon-Kucher & Partners Chairman Hermann Simon who mentioned the concept first in 1999, hidden champions refer to those enjoying the highest to third-highest share in the global market, or recording the highest market share in a continent, while posting yearly sales of five billion euros or less with relatively little public awareness. Mr. Hermann Simon added the presence of source technologies, specialization in niche markets, globalization, and rapid growth to the main characteristics of hidden champions.

At present, a total of 2,734 hidden champions are present worldwide, and 1,307, or 47.81 percent, of them are German. Korea ranks 13th on the list with 23 such firms. The government will set up the criteria suiting the business conditions of Korea in the framework of the Korean Hidden Champion Promotion Strategy.

Comparison of Korean and German Hidden Champions (as of 2012)

Category	Korean Middle Standing Companies	German Hidden Champions
Average Sales	227.9 billion won, US\$222 billion	326 Million Euros (489 billion won, US\$477 billion)
Average Number of Employees	397	2,037
Exports-to-Sales Ratio	14.1 percent	62 percent
R&D Intensity	1.1 percent	6.0 percent
Average Business Duration	23 Years	66 Years

Reinforced Venture Environment

Measured Success in Overcoming Financial Hurdles to Ventures

The Korea Venture Business Association (KOVA) has been there for venture capitalists and entrepreneurs through good times and bad for the past 15 years. Its role is growing more vital amid the current administration's efforts to nurture ventures and startups under various programs such as the "3-year Economic Plan."

BusinessKorea sat down with Nam Min-woo, chairman of KOVA, to talk with him about the organization's achievements, problems, future paths, and suggestions for the government. Excerpts from the interview follow.

It has been almost a year since the current government's May 15 announcement, aka "Measures to develop a virtuous cycle in the venture and start-up funding ecosystem." Could you give us an overall assessment as to the measure's achievements?

The government, starting with the May 15 Measures, has continued with other projects such as "Comprehensive Measures for SME's Re-challenge," to switch its start-up company funding

methods from loans to investment.

Thereby, the overall venture environment has been reinforced. A capital ecosystem for ventures and start-ups has been activated, increasing expectations to inject capital in earnest.

The current government, under the core agenda of the "creative economy," is spearheading venture ecosystem restoration so that ventures and start-ups can overcome the hurdle of insufficient funds

Here are some examples of the government's endeavors and accomplishments for the last year. First and foremost, there was the 2013 May 15 "Measures to develop a virtuous cycle in the venture and start-up funding ecosystem" that allowed increased income tax deductions for angel investment and the revitalization of the KOSDAQ by reinforcing its independence and specialization.

It was followed by the "Comprehensive Measures for SME Re-challenge" announced on October 29, 2013 that included a phased start-up collective surety exemption expansion, and SME management evaluation system rein-

forcement.

During this year's economic ministerial meeting on Feb. 5, stock option taxation improvement measures were proposed to be implemented.

In the wake of the 3 Year Economic Plan, on Feb. 25, 2014, the "collective surety system" has been abolished for exemplary start-ups. There has also been the formation and expansion of youth start-up funds and angel investment funds.

On March 20, 2014, the "Venture Start-up Regulation Improvement Measures" was announced, which involves an overhaul on venture confirmation system assessment and the expansion of stock option entitlements in a bid to recruit high-caliber human resources.

Lastly, April 15th's "Measures for IPO stimulation and regulation rationalization" includes securing an independent operating system for the KOSDAQ, deregulation of the technology assessment IPO exception system, and KOSDAQ listing quality evaluation standard rationalizations.

What do you see as the biggest



achievement of the May 15 measures?

The measures have contributed to widening the highway for funds needed in each phase of the venture company's capital cycle of birth, growth, maturity, and re-investment, and to aptly provide funds according to phase.

Also, a mentoring system was established so that first-generation venture company owners can pass down their know-how to the next generation.

The start-up companies' fund channeling system has been converted from loans to investment, so that it can better serve venture start-ups "high-risk, highreturn" structure.

Many of the previous government's unfinished projects have been completed this time, also. Good examples include the revitalization of angel investment via income tax deduction expansion, deferred transfer taxes for senior venture companies' reinvestment, M&A stimulation via corporate and inheritance tax easement, and reinforcement measurement for the KOSDAO.

Lastly, there has been the successful establishment of sub-infrastructure for the venture ecosystem including startup platform diversification, recruitment of quality human capital, technology theft prevention, and re-challenge environment improvement.

What do you see as a problem or any area that has room for improvement?

We need to reform the venture certification system. It needs to be changed to focus on initial technology development and the diversification of certificates so that investment in technology can be better conducted.

The stock option system was created to secure a quality workforce and wage flexibility for venture companies. Despite partial tax revisions, it still needs improvement in the accounting system since companies and individuals alike are shunning the system for reasons such as accounting standards.

Restoration of the New Technology Exchange Bureau is needed, since it serves as a link between venture companies and conglomerates as well as a platform for M&As.

Loans with no guarantees are being introduced by phase, starting with policy-making financial organizations and state-run banks, but they need to be expanded to the private financial industry.

Also sorely needed is a "fail-safe" culture to be established in the local economy, so that failure can be accepted as a step to success. This is also a core basis of a creative economy.

Is there anything that you wish for the industry?

The venture and start-up environment has come a long way since the May 15 measure and the announcement of the three-year economic innovation plan. This comes from the efforts of the industry that has been voicing their opinions, pushing for these kinds of changes before the current government's moves.

We need to have interest and put forth policy suggestions continuously to stimulate the venture ecosystem, so that follow-up measures can be implemented soon.



Still Long Way to Go

More Measures Needed to Stimulate Virtuous Cycle of Venture Ecosystem

Lee Jong-gap is the chairman of the Korea Venture Capital Association, a 25-year-old organization representing over 89 venture capital companies

in Korea. The organization aims to promote a better venture capital system and enhance the awareness of the importance of the venture capital industry to

the Korean economy. BusinessKorea met with him to talk about the effects of first year of the Park Geun-hye administration's May 15 Plan and his views on what could be done to further improve the plan to more effectively bolster the Korean venture capital industry.



The plan was announced last year in order to address the financing problems hindering the foundation and growth of venture companies. The purpose is to foster investment-centered financing systems in each growth stage while ensuring the reinvestment of capital into the next generation of venture firms. In the first quarter of this year, total venture investment increased 25.2 percent yearon-year to 268.8 billion won [US\$262 million], a new high since 2000, which implies that the plan successfully led to quantitative growth. The amount of investment is showing consistent growth now as well.

At the same time, various systemic and policy improvements have been in place for the fundamental revitalization of the financing ecosystem. The tax deductions on angel investment have been expanded to 50 percent and companies invested in by angel investors can be recognized as venture firms now. New tax benefits for technology and innovation-oriented M&As have been introduced, too.

However, we still have a long way to go in the aspects of corporate foundation and investment recovery. Today's venture ecosystem in Korea focuses



on growth and investment, rather than founding, reinvestment, and retrying. More measures are required to cover these weaker aspects.

Some experts point out that the KOS-DAQ should come before KONEX for a virtuous cycle in the venture ecosystem. What is your opinion?

KOSDAQ and KONEX are fundamentally different. The former has played a central role in investment recovery for a long while, whereas KONEX was newly established as a complementary tool. What matters is not which one of the two should be beefed up, but how to set up and clarify standards suitable for their respective purposes. At present, the Korea Exchange is in charge of the management of both as well as KOSPI, which has resulted in some blurring between the purposes and operation standards. Action needs to be taken so as to deal with this situation.

KONEX, or Korea New Exchange, was founded to supply financial resources required for the growth of small and venture firms, help investors recover their investment and make reinvestment, and assist in the financing of such companies. The system is to promote the trading of the shares of early-stage companies that have yet to be qualified for KOSDAQ. As such, systemic assistance is required for them to settle in KONEX and then to have a chance of listing on KOSDAO.

It is also pointed out that overflowing venture capital and policy funds are having difficulties in finding investment targets. What solution do you have in mind?

I would like to mention the financial means are not overflowing. Policy funds such as the Growth Ladder Fund are to be invested in a phased manner over a period of three years in the government's roadmap. The Fund of Funds and the Korea Finance Corporation are public organizations that have been engaged in venture investment for a long time, and thus are not new.

Although a second venture boom is on the horizon, it is unlikely that the quantity of investment in the corporate sector will surge rapidly in the near future. Every venture capital firm raises funds with a size optimized for its investment purposes and portfolio management strategies, and utilizes the human and financial resources suitable for the size to maximize its profits, in view of domestic and overseas economic conditions and its own investment principles, in organizing its portfolio. Therefore, it is not desirable to look forward to any immediate outcome from policy fund investment. A long-term perspective and patience are necessary instead

I also believe that the division of labor between angel investor and venture capital is highly important in the early stage of business establishment. Additionally, the government and the public sector will have to come up with more tax benefits for individual investors and newly-founded companies so as to mitigate their high investment risks. Venture firms themselves should try as well to sharpen their competitive edge and enhance their understanding of technology finance based on the sense of ethics and technological strength.

Do you have a plan for closer collaboration with global investors?

Global cooperation networks are very important in diversifying LPs and investment targets. Diverse physical elements ought to be input in order to ensure the growth of local venture capital in the global arena and make them more professional.

Collaboration with foreign investors should lead to tangible track records in the global market. For example, policy assistance needs to be provided so that local venture capital firms can be selected as joint GPs with their foreign counterparts when large-scale alternative investors such as the National Pension Service raise global funds. This will be a great boon for the venture capital firms to expand abroad.

Also significant are networking projects for global partnership making use of the Asia VC&PE Council covering the parties concerned of 10 Asian countries like Korea, Japan, Hong Kong, and China. Overseas training and exchange programs will be implemented for working-level experience, enhancement of global competitiveness of Asian venture capital, and introduction of advanced investment techniques. Experts trained in these programs will set the stage for local venture capital firms' overseas market penetration.

What recommendations or requests to the government do you have for the virtuous cycle in the venture ecosystem?

Recovery of venture investment is the number one link for reinvestment in venture firms. In this context, follow-ups are required so KOSDAQ and KONEX can better act as intermediate investment recovery tools. I would like to propose the revitalization of M&As and increased assignment of policy funds in the Secondary Fund, along with rational improvement of the procedure and requirements associated with M&As based on investors' trust.

The dependency on policy finance has to be lowered and the financing structure should be diversified for the venture capital industry to enjoy sustainable growth. During the course, financial institutions and private capital have a huge role to play for the soundness of venture funds. Various tax benefits and incentives for the private sector will add to the effect of such measures, too.

In the current legal system, venture capital firms are regarded as a sort of means for backing up the real economy and present on the premise of corporate foundation assistance. This has resulted in various forms of regulations, including the restriction of investment in already listed companies. Venture capital should be considered as an independent industry so that its autonomy can be enhanced on the basis of stable growth.

Economic Uncertainty

Risk Factors from China, Japan Could Imperil Entire Asia-Pacific Economy

The IMF warned on April 27 (local time) that the rapid slowdown of the Chinese economy and the failure of Japan's Abenomics are the two biggest risks of the Asia-Pacific economy.

The organization published economic outlook reports by region on this day and estimated the Asia-Pacific region's annual growth rate for this year at 5.4 percent, 0.2 percentage points up from a year earlier. "The region is expected to record a growth rate of 5.5 percent in 2015 as well to continue its stable growth," it explained, adding, "Asian countries have gone through economic reforms for greater resistance to external shocks, and they will keep spearheading the growth of the global economy."

Still, the IMF did not forget to point out that Japan and China, the two pillars of the regional economy, could pose a significant threat in that unfavorable signs from China could lead to a severe recession on the real economy side if compounded by a domestic financial crisis taking the form of bad debts and shadow banking estimated at dozens of trillions of yuan. It also warned that this could deliver a staggering blow to its major trade partners such as Korea, Japan, Australia, and Taiwan.

The Wall Street Journal recently reported that trust goods worth US\$420 billion come to maturity in China this year to increase the possibility of default. "The financial system of China will be put to test from May this year, when the size of the maturity starts to skyrocket," it said. According to China Trustee Association data, the combined size of trust goods, one of the typical examples of shadow banking products, reached 11.7 trillion yuan as of the end of last year, more than quadrupling in just four years.

Another risk factor is the possibility of the failure of Japan's economic policy against 15-year-long deflation.



"Prime Minister Shinzo Abe made a good start in monetary easing and fiscal expansion for economic stimulation, and the consumer prices and growth rate are on the rise alike," the IMF remarked in the report, continuing, "However, questions remain if it will lead to sustainable growth and the eradication of deflation."

According to a recent simulation conducted by the IMF, Japan's economic growth rate for 2014 could fall down to 4.0 percent in the worst case if a strong yen, increase in long-term interest rates, and drop in real wages (i.e. the failure factors of Abenomics), interact with each other. ©

OECD Adjustment

Burgeoning Confidence in Korea's Growth

The Organization for Economic Co-operation and Development (OECD) made an upward adjustment on Korea's economic growth forecast to 4.0 percent, up 0.2 percentage points, while trimming down expected economic growth rates of global and American economies.

According to the Ministry of Strategy and Finance (MOSF) on May 6, the OECD, through its "2014 Economic Outlook," spiked 2014's local economic growth forecast from 3.8 percent to 4.0

percent.

The global organization also added the same 0.2 percentage points in upgrading Korea's 2015 growth forecast from 4.0 percent to 4.2 percent.

It is the OECD's analysis that the local economy will gain momentum in its recovery on the back of its export boom.

The organization counted as a big growth factor Park Geun hye government's 3-year economic innovation.

In the meantime, it cut down this



The Château de la Muette, the headquarters of the Organization for Economic Cooperation and Development in Paris, France.

(Photo by Patrick Janicek via Wikimedia Commons)

year's global and America's economic growth forecasts.

The OECD shaved off its beginning of the year global and America's growth forecasts of 3.6 percent and 2.9 percent to 3.4 percent and 2.6 percent, down 0.2 percentage point and 0.3 percentage point, respectively.

Also, the organization upgraded this year's global trade growth forecast from last year's 4.4 percent to 4.8 percent, but the next year's forecast was lowered from 6.1 percent to 5.9 percent.

Long-term Depression

Will Korean Economy Repeat the Mistake of Japan after Plaza Accord?



A G5 finance ministry meeting was held at the Plaza hotel in New York in 1985 to address the U.S. trade deficit due to a weak yen, which has been called the Plaza Accord.

Morea could repeat Japan's long-term depression with the Korean government condoning the appreciation of the won to some extent in order to boost domestic consumption.

The 30-year-long depression of the Japanese economy carries significant implications at this point of time. It was ignited back in 1985 with the Plaza Accord. At that time, the United States demanded the yen to appreciate to address its current account deficit, and Japan accepted the demand on the confidence that it can make up for the subsequent decrease in exports by means of the domestic consumption.

As a result, the yen-dollar exchange rate fell from 250 yen to 150 yen per U.S. dollar in just one year, delivering a serious blow to Japanese exporters. Exports from Japan declined for 33 months in a row in the wake of the conclusion of the Plaza Accord. Then,

the Japanese government came up with a series of measures to boost domestic demand. However, such measures led only to the burst of an economic bubble and deflation. It is no stretch to say that the Plaza Accord is the main culprit of the so-called lost decade of Japan.

The central bank of Japan cut the key interest rate to help the firms suffering a decline in profitability. During the single year of 1986, the rate fell from 5 percent to 2.5 percent a year.

Unexpectedly, however, investors rushed into the asset market. The price earnings ratio (PER) of NIKKEI jumped 70-fold in late 1989 and the loan-to-value (LTV) ratio exceeded 100 percent. In the meantime, corporations moved abroad to exacerbate the hollowing out of the manufacturing sector.

The Japanese government was rather lax in its fiscal policy, too. Due to populist policy and the continuous expansion

of fiscal spending, government debts skyrocketed from 37 percent to 238 percent of the GDP between 1990 and late last year.

Experts say that the Korean government would be well-advised to pace itself in view of the slow recovery of domestic consumption as of late, though the balance between export and domestic consumption is the ultimate goal without any doubt. "Many people think that a drop in the won-dollar rate will result in greater imports of raw materials, more investment, and lower import prices, but the thing is, the exchange rate and domestic consumption have no close correlations at all," said Lee Junhyup, research analyst at the Hyundai Research Institute, adding, "Rather, in some cases, the drop in the forex rate could hamper the export side as well."

Korea-China Trade

Korea's Exports to China Losing Momentum This Year

According to the Ministry of Trade, Industry and Energy on May 6, Korea's exports to China stood at US\$42.5 billion from Jan. 1 to April 20, a 1.5 percent year-on-year gain. The number is a sharp decline, compared to an 8.7 percent increase during the same period last year.

China accounted for 24.9 percent of the nations' total exports, lower than the same period last year (25.1 percent). The share of China was 26.1 percent in 2014, the highest-ever annual result.

Korea's export growth rate to China in April is estimated to be 2.4 percent. In contrast, outbound shipments to the US and ASEAN posted double-digit growth of 19.3 percent and 17 percent, respectively. The phenomenon can be interpreted to mean that China's recent sluggish exports and its slowdown in economic growth contributed to the overall drop.

China's total export volume fell by



3.4 percent in the first quarter. The country's economy grew 7.4 percent in Q1, felling short of the economic growth rate of 7.7 percent in Q4 of last year, or its annual growth target of 7.5 percent. The fact that China is putting more weight on the expansion of domestic demand could be an opportunity for Korea, but a

According to data compiled by the Korea International Trade Association,

huge burden at the moment.

the nation's processing trade comprised 47.6 percent of the total exports to China in 2013, exceeding the 34.8 percent of Japan and the 36.1 percent of Hong Kong. However, a large number of Korean exporters are using China merely as a manufacturing base for exports to other countries. It means that despite the trade volume, their footing in the Chinese market is weak.

Weak Yen Trap

Korean Exporters to Japan Dealt Blow from Weak Yen

At least 92 percent of Korean companies exporting to Japan are taking a hit from the weak yen, while the others whose export destinations include regions other than Japan are subject to negative effects from the relatively cheaper prices of Japanese products such as ships and petroleum products.

The Institute for International Trade of the Korean International Trade Association published a related report on May 6, adding that a total of 216 Korean firms, or 92.6 percent of the survey

respondents, are suffering damages from the weak yen in the form of deteriorating profitability or decreased exports. Their yen-based settlement ratio reached 46.9 percent as of the end of last year.

The rate of increase of exports to Japan on the basis of the U.S. dollar rose 3.8 percent between November 2011 and the same month of the following year, but plunged by 18.1 percent in December 2012 and 10.7 percent year on year in the first quarter of this year.

448 of those exporting their products



to countries other than Japan are relatively free from the impact of the weak yen. However, marine vessel, machinery and petroleum product exporters are having difficulties due to price dumping by Japanese firms. Japanese companies' total export volume decreased between December 2012 and February this year, but their ship and petroleum product exports jumped 136.9 percent and 42.6 percent during the same period, respectively.

FX Illusion

Increase in National Income Not Resulting in Higher Living Standard



The livelihoods of the general pub-L lic is showing no sign of improvement, even though Korea's per-capita gross national income (GNI) is close to US\$30,000. Experts point out that this is due mainly to the foreign exchange effect caused by a strong won and the lack of profit flow from the corporate sector to households.

According to local economic research institutes, Korea's per-capita GNI is expected to be slightly below US\$30,000 as of the end of this year. The LG Economic Research Institute recently estimated the figure at US\$29,250, increasing by US\$3,045 from a year earlier, assuming an average currency rate of 1,030 won per U.S. dollar and an annual economic growth rate of 3.9 percent.

The Hyundai Research Institute, in the meantime, predicts that the sum can exceed US\$30,000 this year. According to its data, the per-capita amount is expected to reach US\$30,535 when the average exchange rate and economic growth are at 950 won per U.S. dollar and 4.0 percent, respectively. "It is the foreign exchange rate that has the greatest impact on the national income," said Joo Won, senior research analyst at the institute, adding, "This year's exchange rate conditions are likely to be a rather positive factor on the national income side."

Nevertheless, it seems that the increase in GNI will have little immediate effect on the living standards of people in general, since it is mainly driven not by actual economic growth but exchange fluctuations. Besides, the personal gross disposable income (PGDI), which is calculated by subtracting corporate and government incomes from the GNI, is still very low. The percapita PGDI of Korea is approximately US\$15,000, about 50 percent of the GNI. This means money rarely flows from companies to households.

The percentage is easily dwarfed by those of OECD member countries. According to the Bank of Korea's data for the year of 2012, Korea ranked 16th out of 21 of the countries when it comes to the PGDI-to-GNI ratio. Korea, in fact, was at the bottom of the list along with Estonia, given that the 18th to 21st positions were taken by Sweden, Norway, Denmark, and the Netherlands, all of which are welfare states.

It is not certain whether or not the PGDI will catch up with the increase in the disposable income of the corporate sector, either. The central bank has recently announced that Korean companies' disposable income soared by 80.4 percent during the last five years. Meanwhile, the PGDI growth was limited to 26.5 percent during the same period. "The profit inflow has been persistent since the 2008 global financial crisis," said Korea Institute of Finance senior researcher Park Jong-kyu. ®

Earning Disparity

Employees of Major Business Groups Earn 50% More than Those Hired by SMEs

It has been found that big businesses' employees received a 50 percent greater annual salary last year than those working for small and mid-size enter-

According to the Economic Reform Research Institute and the Data Analysis, Retrieval and Transfer System of the Financial Supervisory Service, the average annual salary of those working for the subsidiaries of the 30 major business groups was 67 million won (US\$65,057), which was 22 million won (US\$21,362) more than that of the rest. The survey was conducted on the 1,666 corporations in Korea settling their accounts in December.

In the meantime, the average salary of the 860 inside directors in the major groups reached 615 million won (US\$597,165) in the same year, whereas the amount was limited to 225 million



won (US\$218,475) for the other inside directors. The salary difference between inside directors and general employees was 9.18 times in big business groups and approximately 5 times in other listed companies.

Shrunken Bourse

Daily Average Seoul Stock Trading Volume Approximately Halved



An increasing number of investors are leaving the stock market, as economic uncertainties linger on and the preference for risk-free assets is on the rise. The daily average trading value dropped from approximately 6.9 trillion won (US\$6.65 billion) to 4.8 trillion won (US\$4.6 billion) between 2011 and last year.

The volume reached a trough at 4.19 trillion won (US\$4.04 billion) in the fourth week of December 2013, and totaled 5.5 trillion won (US\$5.3 billion) in January this year. The latter figure is the lowest for any January since 2007. The ratio of orders to actual transactions

dropped along with it to 39.83 percent last month, which is also the lowest since the first collection of the statistics in 2003.

The downward spiral can be attributed to the profit generating structures of local securities companies that are very vulnerable to stock market slumps. According to the Financial Supervisory Services, brokerage commissions account for 62.43 percent of the combined fee income of the 10 major stock firms in Korea, and the excessively high dependence has weakened the structures. The cut-throat competition among them is compounding the problem, too.

Another reason is the profit structures that are not much different between leading and smaller stock firms. "The similarity between the two groups signifies that they have a far way to go for specialization and efficiency," said an anonymous industry source.

Some watchers also point out that the most fundamental cause is the weak capital strength of the firms. According to the Korea Capital Market Institute (KCMI), leading Korean securities companies have equity capital of about 3.6 trillion won (US\$3.5 bilion), which is 1/21st of Goldman Sachs and 1/8th of Nomura Securities. The vulnerability has also affected personnel productivity. Korean stock firms' net operating profits per employee is just 20 percent of that of Goldman Sachs, and 30 percent of Nomura Securities.

"Those bigger securities firms in Korea have failed to act as market leaders due to their substandard capital strength," KCMI researcher Lee Seokhoon explained, adding, "Major investment banks have to be capable of high value-added sales based on large capital and investment in overseas networks, with the capital market globalizing itself at a rapid pace, but the Korean players appear to fall much behind in these aspects."

Debt-stricken

400 KOSDAQ Firms Mired in Debt



Financial data provider FnGuide reported on May 7 that 400 out of the 1,009 companies listed on the KOSDAQ have debts so excessive as to pose a potential threat to their future business. One of them was in the state of full capital impairment, and 53 have partial capital

tal impairment as of the end of last year.

Furthermore, as many as 346 KOS-DAQ-listed firms have a debt ratio of at least 100 percent. They can be divided into 237 in the below-200 percent group, 64 in the below-300 percent, 22 in the below-400 percent, 13 in the below-500 percent, and nine between 500 percent and 1,000 percent.

At present, the debt ratio is not included in the reasons for delisting or administrative issue designation according to the current code of the Korea Exchange covering the KOSDAQ.

Instead, KOSDAQ firms with fully impaired capital are delisted, and those whose capital impairment ratio is at least 50 percent are designated as administrative issues. This means that investors themselves have to look into the financial conditions of the companies before they collapse due to heavy debt.

"The debt ratio itself has nothing to do with delisting or administrative issue designation," the Korea Exchange explained, adding, "However, we do provide information for investors by compelling any borrowing and debt guarantee equivalent to 10 percent or more of capital to be subject to public announcement." The Korea Exchange delisted three companies, by reason of full capital impairment, this year alone.

Korean Derivatives Market

Derivatives Transactions Shrinking Rapidly for Taxation Concerns



The daily average derivatives trading volume shrunk by over 30 percent this year when compared to last year. Besides, trading by foreign investors in the local futures market has dropped 15 percent or so, adding to the possibility of persistent market contraction, with discussions going on as to a tax on derivatives.

The Korea Exchange announced on April 23 that the daily average volume totaled 2,686,501 this year, approximately 3/4ths of the 3,535,136 of a year ago. The daily average trading value also dropped 30.61 percent from 51.6291 trillion won (US\$49.7 billion) to 35.8233 trillion won (US\$34.5 billion) during the same period.

The daily volume was around 7.4 million in 2012 and 3.22 million in 2013. The continuous downward trend signifies that the local derivatives market is very rapidly losing its appeal. The daily average value, likewise, has declined by more than 12 percent last year from 54 trillion won (US\$52.0 billion) to 47 trillion won (US\$45.3 billion) and to 35 trillion won (US\$33.7 billion) in the first quarter of this year.

Another concern is that more and more foreign investors are shunning the derivatives market segments. For example, the volume of trading by foreigners fell 14.9 percent from 94,531 to 80,450 between the first quarters of 2013 and this year in the KOSPI 200 Futures Mar-

ket. Such a trend is likely to last for a while, since the financial authorities keep a closer eye on the derivatives market for its speculative nature.

Furthermore, Korea slid from first to fifth and then to ninth between 2011 and 2013 in the international rankings of derivatives markets. Meanwhile, China's Dalian Commodity Exchange (DCE) and Shanghai Futures Exchange (SHFE) climbed from 14th to 11th and from 13th to 12th, respectively. Japan's JPX Group jumped from 17th to 14th last year as well, with its transaction volume boosted by over 56 percent.

China and Japan have been quick to snatch the demand Korea has missed out on. They posted a growth rate of 39.5 percent and 39.7 percent each last year to become the two fastest-growing derivatives markets in the world.

China climbed from seventh to sixth and up to third between 2011 and 2013. The country has tried to revitalize its derivatives markets by allowing new products such as coke futures and plate glass futures to be listed, and re-listing the five-year bond futures in 18 years.

Japan, which has remained at the ninth spot for three years in a row, is watching for an opportunity to overtake Korea. In August last year the former announced plans to increase its transaction amount 150 percent by 2015. It is currently mulling over the listing of new items like 20-year bond futures and overseas index futures and a decrease in the asking price gap for the benefit of high-frequency and volume traders, too.

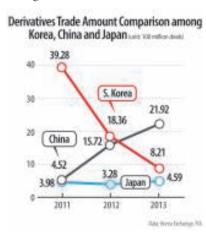
With the situation as it is, the Chinese CSI300 Futures skyrocketed 108.4 percent in trading volume in 2013 alone, and the Nikkei 225 Mini Futures also recorded a growth rate of 79.3 percent. In contrast, the KOSPI 200 Futures trading volume declined by 20 percent dur-

ing the same period.

The problem is that things remain gloomy at best for the Korean market. The collapse of the market can be mainly attributed to government regulations. The financial authorities raised the multiplier for each KOSPI 200 Index Option contract from 100,000 won (US\$96.30) to 500,000 won (US\$481.50) back in 2012. This was to drive speculators out of the derivatives market, only to result in an increasing number of individual investors packing up and leaving.

Experts criticize the Korean government for its excessive regulations, including taxation, on the derivatives markets, and this is contrary to the global trend as of late in which the other countries are trying to increase trading volume. "It cannot be denied that derivatives are speculative to some extent, but it is also true that they function as a hedge for the spot market," one of them explained.

"The domestic market has already reached a limit in terms of trading volume and value alike," said another industry source, adding, "No upturn will be found, no matter how various products come out, unless the financial authorities change its recognition to ease the regulations."



Overseas Private Bankings

Korean Banks Struggling in Overseas Private Banking Markets

Korean commercial banks are fighting a hard battle in asset management markets abroad. Those that have launched wealth management and private banking programs for foreign customers have already withdrawn their business, and the others are postponing their plans. Market penetration is also becoming more and more difficult due to tightened financial restrictions ever since the recent global financial crisis.

Shinhan Bank entered the private banking market of Hong Kong in 2008. The idea was to create a new profit source, but the bank cut its losses and is doing no overseas private banking at all now

Hana Bank, which started its overseas business 10 years ago, is engaged in limited private banking in just the three regions of Hong Kong, Shanghai, and Indonesia. Hana Bank is the one most aggressive in Korea in overseas banking, but its activities are limited to brand advertising and information service.

The other major banks such as KB Kookmin Bank, the Industrial Bank of Korea (IBK), and

Woori Bank are showing no progress for years due to the associated risks, either. KB Kookmin is currently expanding its overseas sales networks fast, but running no wealth management programs abroad. Woori is also repeating internal reviews only. IBK is providing no PB service for overseas clients and assets although it offers assistance for Korean entrepreneurs and employees in China and some other countries in managing their assets in Korea.

In the meantime, the Hana Institute



of Finance recently released a report titled "Global Banks Reshaping Overseas PB Business," to point out that the major obstacles against Korean banks include their much weaker brand power, lower mobility of personal banking customers, and surge in costs caused by varying restrictions in different countries. "It is unlikely that Korean commercial banks will roll up their sleeves to penetrate overseas markets while taking the regulation risks unless the restrictions are eased to a pre-financial crisis level," said an industry source. @

Overseas Expansion

Shinhan Bank to Open Up Polish Office

Shinhan Bank, will make a foray into Poland's financial market in June at the earliest, the first time for a local bank to enter that market. On a similar note, the bank is actively mulling over the possibility of acquiring a local Polish bank in a bid to expand its global presence.

Shinhan Bank CEO Suh Jin-won said during a press conference on May 4 in Astana, Kazakhstan, where he was visiting to attend the Asia Development Bank (ADB) annual meeting, "The Polish authority gave us the green light at the end of April. Our office is scheduled to be set up either in the second or third quarter." The bank is to advance into Poland via opening up a local corporation in Frankfurt, Germany.

The CEO cites a host of Korean manufacturers' presences in Poland as the reason for making inroads into the country, and said, "Via our Polish office, we can cover further grounds such as neighboring countries including the Czech Republic and Slovakia. In overseas expansion, we would like to build grounds where local corporations are present, and to further expand into retail. Once we operate the office in Poland and if deemed necessary, we will upgrade it into a branch."

Suh, after judging that the local financial market is saturated, is spear-heading the policy to expand overseas through M&As.

In 2013-2014, all overseas branches and offices of the bank in 15 countries



As part of Shinhan Bank's overseas expansion, it opened Thornhill Branch in Toronto, Canada, on April 11 of this year.

stayed in the black for two years in a row. On the back of its overseas success, the bank opened up Thornhill Branch in Toronto, Canada on April 11 of this year. The Thornhill Branch is the bank's 68th overseas presence.

Regarding global expansion, the CEO said, "Establishing ourselves in a foreign market from scratch is no easy task, so an M&A is a good option for us. We are constantly hunting for a good buy. In this light, in Indonesia, in December last year, we inked the Stock Purchase Agreement to buy a 40 percent stake in their local bank, Bank Metro Express, and are considering a further acquisition."

Mobile Banking

Evolution or Revolution?

Mobile loan products currently served by banks have come a long way in terms of service quality and diversity. For one thing, a wide array of loans are offered on mobile platforms now, from credit loans, household loans such as housing mortgage loans, to corporate loans.

Their services are enhanced also in that what used to be a simple loan application has evolved to be a one-stop service from loan applications, to contracts and execution, all done without having to visit the branch.

Above all, mobile loan products seem to multiply the impact of the "smart finance" expansion on the banking industry.

In this light, banks need to regroup themselves, such as figuring out how to utilize extra staff, on the heels of reduced demand for loan consultation.

A high ranking employee at a local bank relayed, "Mobile loan expansion can be another game changer for the banking industry. Internally, we are mulling over the possibility of applying mobile loan technology to automated machines."

The banks are scrambling to expand mobile loan products because of their growth potential.

Last year, in 17 local banks, the number of smartphone mobile banking users stood at 37 million, 55.2 percent up year-on-year, and the growth rate was over five times that of Internet banking.

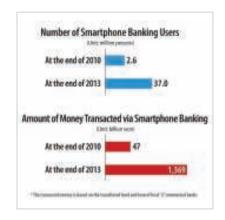
For now, the banks are setting loan limits conservatively due to data shortages such as the default rate and the system operation still being in its initial stages.

Woori Bank's mobile loans are capped at 20 million won (US\$19,560), about 20 percent of the offline loan cap.

However, the cap is to be lifted on the back of mobile loan's rapid growth and system stabilization.

One local bank loan officer said, "The sky is the limit for mobile loans, which only accounts for five percent of the total currently."

Some see it as such a game changer that it could even trigger a banking revo-



lution

A similar example can be found in securities firms, where they drastically changed their operating strategies while downsizing trading rings, in light of active mobile stock transactions and a dearth of consultation demand.

A local bank's vice president pointed out, "Mobile loans can trigger enormous expansion of credit volume. Management strategies should be altered in accordance with ever-evolving loan products."



Screenshots from the Korea Exchange Bank application on Google Play.

Restructuring of Large Businesses

10 Major Business Groups in Korea Subject to Restructuring This Year





Approximately 10 major corporations in Korea are expected to be subject to restructuring this year, led by the financial authorities and creditors. The estimated number increased by 3-4 due to the recent slump in the construction, shipbuilding, and shipping industries. At the same time, a couple of other business groups are likely to be selected as the targets of strict management against insolvency, though they won't sign an agreement for financial structure improvement.

According to industry sources creditors, the Financial Supervisory Service, and the Financial Services Commission are planning to pick about 10 groups, including the Hyundai Group, as the targets of the financial structure improvement agreement for this year. The number of candidates is currently 42, all of which are in the main debtor group of relatively higher indebtedness.

Late last year, the main creditor banks classified 42 companies into the main debtor group, where the credit granting balance in the banking sector exceeded 0.075 percent, or 1.2251 trillion won (US\$1.1981 billion) of the total balance, and has assessed their financial structures since then. The number of the main debtor group companies was 30 in 2013.

Last year, the financial structure improvement agreement covered Hanjin, STX, Dongbu, Kumho Asiana, Taihan Electric Wire, and Sungdong Shipbuilding. STX, Taihan Electric Wire, and Sungdong Shipbuilding failed to address their liquidity problems and were put to a voluntary agreement tighter than the financial structure improvement agreement. Kumho Asiana concluded a workout agreement with its creditors, too. Only Dongbu and Hanjin are fulfilling the financial structure improvement agreement as of now. Newly added to the main debtor group this year are Halla, SPP, Hyundai, Hankook Tire, Aju Industry, E-Land, Daesung, Hansol, Pungsan, Hite Jinro, Booyoung, Hyundai Development Company, and STX Off-

shore & Shipbuilding.

The financial structure improvement agreement is for those in the main debtor group considered to be more vulnerable to move ahead with financial structural reform by means of an agreement with the main creditor banks. The voluntary agreement, in the meantime, is characterized by a certain grace period for debt redemption or emergency fund support against a short-term liquidity crisis. In the workout agreement, which is stricter than both of the two, the receivables are classified into a substandard loan for full-scale restructuring.

The creditors are planning to apply intensive restructuring programs, including the disposal of key assets and layoffs, to 10 of the big businesses this year. They are going to be quite strict this year in the wake of the huge allowance for bad debts from STX and the like.

The Financial Supervisory Service and the Financial Services Commission are striving to stabilize the financial market as well by speeding up the restructuring of the Dongbu and Hyundai Groups. On April 30, the latter decided to sell the LNG Business Division of Hyundai Merchant Marine to IMM Investment at 1.03 trillion won (US\$1.00 billion), raising the rate of fulfillment of its self-help plans to approximately 60 percent. Dongbu is also having talks with POSCO to sell the Incheon plant of Dongbu Steel and Dongbu Dangjin Power, two of its core subsidiaries.

Dongkuk Steel and Hanjin Heavy Industries are predicted to be subject to strict management, which is a newly-created category. The main creditor banks are to monitor the companies on an ongoing basis, since these are likely enough to be included in the financial structure improvement agreement in the near future. The new system was established to deal with the loophole used by some companies that passed the financial structure assessments but then filed abruptly for court receiver-

ship. The targets have to conclude an information provision agreement with the main creditor banks and go through negotiations with them prior to any important marketing activities.

Bad Loan Bomb Ticking for Local Banks

With the restructuring of large poor-performing businesses, the local financial circle is expected to be impacted greatly by large businesses' bad loans to local commercial banks, estimated to exceed 25 trillion won (US\$24 billion).

Moreover, creditors will designate another 10 companies out of 42 financially unhealthy companies, including Hyundai Group, as financial restructuring agreement targets.

In this grim financial backdrop, local banks cannot dare to voice their demand to ease bad debt appropriation installment standards, following companies' restructuring.

According to the Korea Federation of Banks (KFB), NICE Information Service Co's KIS-LINE, and Woori Investments and Securities on May 12, the financially unhealthy conglomerates' exposure is estimated to reach 25 trillion won (US\$24.5 billion), a new burden on local banks.

The figure was calculated via financial assessment scoring based on the Financial Services Commission (FSC)'s "Relevant systems Improvement Measures to Prevent Corporate Defaults." The assessment excluded non-financial elements. Also excluded were repurchase agreements, undefined payment certificates, and credit sales bond mortgage loans from the total of the credit balance of conglomerates' affiliates.

Most conglomerates that are likely to be newly subject to financial restructuring agreements this year had a credit rating of A-B. The A-C groups that are highly likely to be subject to new financial restructuring agreements harbored exposure that reached 9.7 trillion won (US\$9.5 billion). The D-G groups that are subject to new agreements were estimated to have 16.8 trillion won (US\$16.4 billion) in exposure.

By bank, Korea Development Bank (KDB) had the largest new credit exposure at 7.9 trillion won (US\$7.7 billion). Out of this, the A-C groups most likely to contract financial restructuring, had an exposure amount reaching 1.8 trillion won (US\$1.76 billion). Next in line was Korea Exim Bank with 4.6 trillion won (US\$4.9 billion).

Hana Bank had the estimated exposure of 3.9 trillion won (US\$3.8 billion), and Woori Bank had 3.8 trillion won (US\$3.7 billion).

NH Nonghyup (1.4 trillion won, US\$1.4 billion) and Shinhan Bank (1.2 trillion won, US\$1.2 billion) were estimated to have exposure exceeding 1 trillion won (US\$976 million).

Other banks include Kookmin Bank (912 billion won, US\$890 million), Daegu Bank (408 billion won, US\$398 million), Su-hyup Bank (308 billion won, US\$300 million), Kyongnam Bank (216 billion won, US\$211 million), Kwang Ju Bank (177 billion won, US\$173 million), Busan Bank (119 billion won, US\$116 million), Standard Chartered Bank Korea (79 billion won, US\$77 million), JB Bank (80 billion won,



The Financial Services Commission (FSC) and the Financial Supervisory Service (FSS) are planning to pick about another 10 groups as the targets of the financial structure improvement agreement this year.

US\$78 million), Citibank Korea (79 billion won, US\$77 million), and the Industrial Bank of Korea (36 billion won, US\$35 million) in exposure.

The default problem does not seem to end here. According to The Bank of Korea's "Financial Stability Report" to the National Assembly, the number of marginal businesses with below 100 percent in interest coverage rate rose from 2,019 in 2009 to 2,965 in 2012.

In this light, a voice is demanding that financial aid should be cut off to financially unviable companies. While financial viability requires a prudent judgment, financial support to irrecoverable companies seems like pouring money into a bottomless pit.

As of the end of 2013, local financial institutions' exposure against marginal firms amounted to 85.8 trillion won(US\$83.7 billion) in total.

The banks are complaining that they are the victims of regulations from the past. One local bank associate expressed his woes, "The financial authority applied pressure in one way or another on creditor banks that were cut off. We are heavily burdened with bad loans."

Interview with Vice Governor

Aiming for Eco-friendly Economic Capital of Korea through Tourism Resources and Advanced Technology

Jeju is moving ahead with both the Carbon-free Island and Global Environmental Capital Projects, chasing two hares at once. The idea is to boost its attraction by turning itself into the global hub of green industry and tourism, where advanced power and IT are combined with its excellent natural environment.

"The eco-friendly industries in Jeju are at their early stage for now, but we are focusing on their great contributions to sustainable environments and environmental restoration," said Kim Sun-woo, vice governor of Jeju Special Self-governing Province for Economy & Environment. He added, "We will foster the

eco-friendly economy by means of new and renewable energy, advanced green industry, the healthcare industry, etc."

Jeju launched the Carbon-free Island 2030 Project in 2012. Could you tell us more about that?

The goal is to make the entire region carbon-free by 2030. The testbed was set up in Gapado in its first phase and the ratio of smart grids, electric vehicles (EVs), and new and renewable energy sources such as wind power will be raised to at least 50 percent of the total energy demand in the second stage to be completed in 2020. In the final one, offshore wind power generation systems with a combined capacity of 2 GW will be built by 2030 to decrease its power dependency to zero.



Kim Sun-woo, vice governor of Jeju Special Self-governing Province for Economy & Environment.

Can you break the project down by segment?

Jeju will become the center of a smart grid, which is key infrastructure for the undertaking, from 2015 when the system is applied to the entire island. Last year, Jeju was selected as a target region in the two segments of the Smart Grid Development Project led by the Ministry of Trade, Industry & Energy. In this framework, EV and alternative energy-associated development models will be applied to maximize the region's advantages, and home-level smart grid systems will be in operation from 2020.

The National Smart Grid Interoperability Testing Center, which was won last year, is scheduled to be completed within this year and run from 2015. It is expected to add to the merits of Jeju, along with the Demonstration Complex,

as a testbed of the state-of-theart technology.

In the meantime, the ratio of alternative energy sources will be raised to 100 percent in the power sector by 2030. From 2019, 50 percent of the local power supply will be from on-land wind power facilities with a capacity of 350 MW and 1 GW offshore wind power stations. The latter is planned to be doubled by 2030.

The EV infrastructure of Jeju is second to none in Korea. Building on this advantage, we will convert 100 percent of the vehicles in the region to EVs by 2030. The target for 2017 is 10 percent or 29,000 units, mainly in the public sector and mass transit, and that for 2020

is 30 percent or 94,000 units, the best part of which will be buses and rental cars. The percentage is 10 percent higher than that of the central government for the year of 2020.

Once the Carbon-free Island Project is wrapped up in 2030, greenhouse gas emissions will be cut by 30 million tons, and approximately 40,000 decent jobs will be created in the green industry to result in a production inducement effect of 13.5 trillion won and 5.8 trillion won worth of added value, not to mention the huge synergy effect among industrial sectors.

The vision of Global Environmental Capital is drawing much attention as well. What is the background?

Jeju Island is a treasure of the world beloved by people around the globe. It is not only one of the Seven Wonders of Nature but a part of the Biosphere Reserve, the World Natural Heritage, and Global Geoparks of UNESCO.

Two years ago, the World Conservation Congress was held with great success in Jeju. The Jeju Declaration was adopted there as the first declaration in the history of the conference to be named after the hosting region. Five region-specific agenda items were adopted as the resolutions of the International Union for Conservation of Nature (IUCN), including those for the development of evaluation and certification systems for the World Environmental Hubs, establishment of an integrated management system for Jeju as the Protected Area, and support for the preservation and utilization of the Gotjawal lava forests. All of these prove the significance of Jeju as a valuable environmental asset.

What roadmaps do you have concerning this point?

In the first phase of 2013, we enacted the bill for the Special Act on the Development of Global Environmental Capital while setting up the Cyber Environment Network of World Local Governments. Also, a joint governance framework was formed for the participation of global environmental advisory boards of academic experts and international organizations such as the UNEP and the IUCN.

In the second phase lasting until 2018, the Long-term Environmental Cooperation MOU was concluded between Jeju and the IUCN on January 27 this year. The Jeju World Leaders' Conservation Forum will be held while the assessment and certification systems for the World Environmental Hubs will be adopted. At the same time, eco-friendly practices are going to be popularized for the co-development of the environmental, social and economic systems of Jeju.

Slated for the following two years are the realization of a Carbon-neutral City, restoration of the Hanon Crater, and appointment by international bodies



The Jeju smart grid test bed located in Gujwa-eup, Jeju, Korea.

as the Global Environmental Capital to set up an exemplary model of environmental cooperation and development.

It is said that Jeju has three directions in implementing its conservation-centered environment policy.

The natural environments of Jeju are priceless. These days, well-preserved environments are regarded to be much more valuable than any other resources. Countries around the world are striving to reduce carbon emissions and cope with climate change.

It is in this context that Jeju applies the strictest environmental standards in Korea. Its ecological preservation systems are considered to be the most developed form of its kind, too. The local government will introduce a total environmental resources management system so as to prevent a decrease in the total area of natural resources and suppress sprawling development. The local environmental standards covering the air and rivers of the region are reinforced from this year, too.

As is well known, it is not easy to strike a perfect balance between environment and economy. In Jeju, preservation sites are present even in development areas in the forms of swamps and Gotjawal. Unconditional restriction of development is no answer in view of reality, either. We are doing our utmost to minimize environmental destruction and ensure sustainability at those places where development projects are underway.

Last year, manufacturing exports from Jeju exceeded US\$300 million. What strategies are on your list for export assistance and investment attraction?

We are aiming to at least double the presence of the manufacturing sector to the gross regional domestic product to approximately 6 percent by 2021 and triple that of companies with annual sales exceeding three billion won to 26 percent, while quadrupling the manufacturing exports to over US\$40 million from the US\$11 million recorded in 2009.

The tentative figure, as you mentioned, topped US\$300 million at the end of last year, as the processed food and cosmetics exports increased, and those relocated to Jeju sped up their overseas business. The number of local exporters jumped from 114 to more than 240 between 2009 and 2013, and the number of their export items is now over 200.

This year, the local government will house the Small and Midsize Enterprise Export Support Center for better assistance, and further cement the foundation of the sector so more gazelle companies can do business here. The Seven-year Plan for the Future Vision of Small and Midsize Enterprises and its action plans are soon to be established. I hope that Jeju's export policy will make a great contribution to the national export policy of the central government with which Korea could top the one trillion won mark in annual trade volume.

Provincial Development

JPDC Creating Value from Jeju Water for Greater Contribution to Local Community



Oh Jae-yoon, president of Jeju Special Self-Governing Province Development Corporation.

The Jeju Special Self-Governing Province Development Corporation (JPDC) was established in 1995 to contribute to the development of regional society and promote the welfare of residents by creating high added value from the clean natural resources of the region. It has moved ahead with the spring drinking water business by making use of high-quality bedrock water resources so as to add to local finance and preserve resources in an organized way. Also, it has stressed the importance of corporate ethics and social responsibility since its inception by launching various projects for public interests, all of which have led to value creation in the interest of the people.

Half of Business Profits Returned to Local Residents

Since the inauguration of president Oh Jae-yoon in 2011, JPDC has pursued intensive innovation to boost its transparency and fairness across all sectors, ranging from production and distribution to marketing. One of its priorities has been laid on

the improvement of logistics systems. It ended the unfair, automatically extended contract with Nongshim through litigation and introduced open bidding systems for commissioned sellers.

"In the past, local transporters' presence in the industry was limited to 15 percent due to major logistics companies covering the entire country," the president explained, adding, "However, we dealt with the problem, and now the local companies are allowed to have up to 49 percent shares."

The corporation overhauled the way of material procurement, too. It adopted fully open bidding, in place of the restricted tender for three companies that resulted in rigging in many cases, to save billions of won in annual costs. As a result, the sales volume, sales amount, and net current profits of Samdasoo amounted to record highs of 612,000 tons, 191.2 billion won (US\$186.4 million), and 41.2 billion won (US\$40.2 million) last year, respectively.

In particular, the current net income has more than doubled when compared to the 20.5 billion won of 2010. Furthermore, the corporation returned 57 percent of the net profits earned from 1998, or 132.8 billion won (US\$129.6 million) out of 232 billion, to Jeju Island residents. 116 billion won (US\$113 million) was earmarked as tax revenue of the province to be spent on local projects, and the rest was reverted to the local community, 6.3 billion won (US\$6.1 million) of it in 2013.

"We put first our responsibility as a public organization in returning the profits to the regional community, and this will remain one of our top priorities in the future," the President continued.

Samdasoo, #1 Mineral Water of Korea

The Jeju Samdasoo manufactured by JPDC has an O-index valThe Jeju Samdasoo manufactured by JPDC has an O-index value of 8.2, meaning that it has much clearer taste than other drinkable spring water products. It ranked 15th on the 100 Brands of Korea list published by Brand Stock in December 2013, too. In addition, it topped the mineral water product segment of the 2014 Korea Brand Stars, announced in March this year, for as long as nine years in a row to win the Most Beloved Brand Prize. Jeju Samdasoo's share in the PET bottle water market has remained over 50 percent for years, while recording the highest consumer satisfaction and preference.

"Such excellent achievements have been possible thanks to the high brand value and quality of the volcanic mineral water



product produced in Mt. Halla, a clean region," president Oh remarked. Groundwater derived from the volcanic bedrock aquifer at a depth of 420 meters is used to produce Samdasoo, which has passed the tests of the Food and Drug Administration (FDA) of the United States and the Ministry of Health and Welfare of Japan. In short, Samdasoo is one of the symbols of the clean Jeju.

Premium Water Hallasu

"Jeju water products can be comparable in quality to Evian," he stressed, "However, these top-quality products need to be able to arouse consumers' interest in order to compete with the highly-reputed Evian."

JPDC released the premium water product of Hallasu in April in this vein. The table water product comes in two types, PET and glass, so that its up-market image can be maximized. The glass bottled water is supplied mainly to high-class hotels and restaurants, department stores, international conference venues, and the like for effective overseas market penetration. Hallasu, in the meantime, won the Red Dot Design Award 2013 in July last year and the iF Design Award in February 2014 for its high design value.

Local Beer Brand Jespi

JPDC launched the beer brand Jespi in July last year. Jespi is a premium beer using the region's clean volcanic mineral water and barley for a totally unique taste. It contains neither starch nor other additives, only malt to provide a very rich beer taste.

According to the corporation, the launch of Jespi has more to do with the revitalization of the regional economy than profit generation. "We procure barley harvested in Jeju in producing Jespi beer to help farming households, and the snacks served in Jespi stores are locally produced agricultural, fisheries and livestock goods, too," it said.

Jespi has been a great boon for the regional economy in spite of its short history. It has resulted in the creation of new jobs and new culinary culture along with an increasing number of inbound tourists. The beer is currently available at the 460 m2-wide store located in downtown Jeju.

This year, the corporation is going to continue its recordhigh business performance for the fourth consecutive year by increasing its sales volume, sales amount and net profits by at least 10 percent from a year ago. Specifically, its Samdasoo sales targets for this year are 671,000 tons, 206 billion won (US\$200.9 million) in sales and 46 billion won (US\$44.8 million) in net profits. JPDC is also concentrating on two key projects during the course of this year. One is the export performance of 10,000 tons and US\$5 million. The corporation, which won the Export Tower Prize in 2013 by recording US\$3 million in exports, is aiming to boost the volume to US\$5 million.

The other is a successful development of the Jespi business for higher awareness. JPDC is planning to accelerate the progress of the Jeju Craft Beer Project and the incorporation process, so that more consumers can taste the quality beer both at home and abroad. The corporation proceeds with its Mandarin Food Industry Cluster Project, too. At present, an integrated R&D and production complex is under construction in Seogwipo City, home to JPDC's mandarin factory, to help increase the profits of mandarin farming households.

"As a local public enterprise, we strive to serve the interest and win the trust of all Jeju residents, and this is my and my staff's number one philosophy and conviction in every single day-to-day business activity," the President emphasized.

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Regional New Growth Engine

JEC Becoming Pivot of Jeju as Carbon-free Island

The Jeju Energy Corporation (JEC) has been supporting new and renewable energy development and distribution to improve "energy welfare" for residents in the region. Business-Korea sat down with Cha Woo-jin, CEO of the regional public company, to hear about the region's direction and projects to implement the Carbon-free Island policy of the province. What follows are excerpts from the interview with him.

What is the foundation of Jeju Energy Corporation?

The corporation was set up in July 2012 for more efficient and systematic management of the natural resources of Jeju. At present, it is assuming a central role in the Carbon-free Island policy of the province.

Even before its inception, the corporation has been supported by 87.8 percent of the locals. To live up to expectations, we will strive to improve energy welfare for the people while promoting the region's new growth engines based on stable profits.

For your reference, Bornholm Island in Denmark is running various programs associated with smart grid, electric vehicle, and new and renewable energy, which has resulted in an increasing number of tourists to the small island with a population of 40,000 and a return of more and more young people who used to head to cities to get a job.

Is it true the JEC helps set up an internationally-accredited testing agency for wind power generator makers?

Yes, that is true. We are anticipating the establishment of the first international testing agency in the domestic wind power industry that will lead to more economical and timely testing of locally-manufactured wind turbines and contribution to the export of competitive and high-performance products.

Furthermore, the accumulation of performance testing techniques will result in the development of floating-type offshore wind turbines and replacement of imported components, which, in turn, will turn Jeju into a linchpin of the global wind power sector.

Marine wind power is gaining attention due to civil complaints and regulations on land-based wind power.

Since there is a problem in profitability and a limitation in securing proper land owing to civil complaints and regulations in pursuing land wind power, marine wind power will be vitalized in the near future. We are currently taking steps to build pilot complexes for it in the Hanlim and Daejeong districts. We



Cha Woo-jin, CEO of Jeju Energy Corporation

are going to thoroughly analyze and evaluate the process and expand marine wind power according to Jeju's master plan for wind power management.

As a public enterprise for the region's residents, we listen to their voices and hold their opinions in high regard. Currently, in the case of Dongbok wind power complex for example, we are modifying the wind power arrangement draft reflecting residents' opinions. As a result, the second draft of the wind power generation arrangement has gained 95 percent support from them.

President Park Geun-hye has emphasized the acceleration of deregulation in the wind power generation sector.

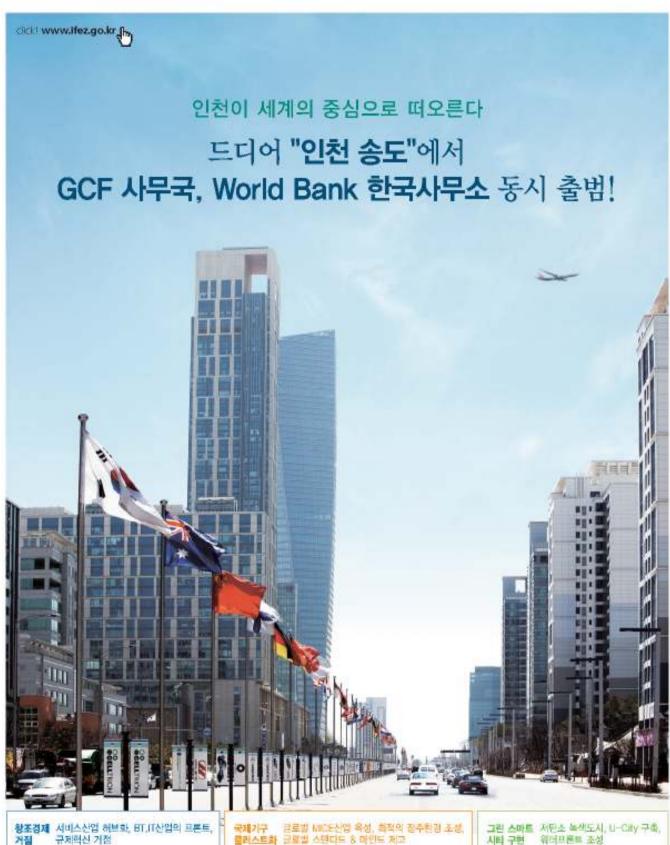
Many onshore and offshore wind power projects have been postponed due to possible interference with military communications, damage to topography, the possibility of natural disasters, potential biological effects, etc. I believe well-organized and thoroughly-planned deregulation is the answer for balance between energy security, ecological preservation, and the development of the sector.

When it comes to land-based wind power, the Korea Forest Service made a prior announcement of legislation in late April this year to ease restrictions on the location requirements of future wind power facilities. I hope more specific and practical schemes will be made available over time through dialogue and exchange between the parties concerned.

Please give an outline of your long-term master plan.

The JEC is currently focusing on better management of the four wind power complexes in the region and better utilization of the wind power resources. This year, the construction of the Dongbok Wind Power Complex with a capacity of 30 MW is scheduled to be started. Once it is completed, Jeju's annual electricity production increases to 65,700 Mwh, to add 140 billion won to its electric power income.

In the long term, we will expand the capacity of onshore and offshore wind power facilities to 150 MW and 1,650 MW each by 2030, while widening our scope of business to cover solar power, community energy, waste gasification and convergence programs associated with the tourism industry and energy control. Additionally, we will launch more energy welfare projects and joint research programs to share our growth with the people of the province.



국제기구 글로벌 MICE산업 육성, 축적의 접주환경 조성, 클리스트화 글로벌 스탠디드 8 마만드 제고

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Inter-sector Collaboration

Samyang Holdings Exemplifies Industrial-academic Collaboration

Samyang Holdings' Sudang Scholarship Foundation held a Sudang award ceremony at the Lotte Hotel in Seoul on May 7.

At the ceremony, the award winners included Sungkyunkwan University Professor Lee Young-hee for the Basic Science Award, Korea Advanced Institute of Science and Technology Professor Sung Hyung-jin for the Applied Science Award, and Korea University Honorary Professor Yun Sa-sun for the Humanities and Social Science Award. The winners each received a plaque and a cash prize of 100 million won (US\$97,300).

Professor Lee was recognized for being a vanguard in carbon nanotubes and graphene research, their industrialization, and elevating the status of local research to a global level.

Professor Sung was recognized for his role in the development of energy and biotechnology that focuses on heat transfer modeling and measurement and flow control, based on his overall research in fluid mechanics.

Professor Yun was highly regarded as having overcome the remnants of the colonial view of history in Korean philosophy, while exploring and transferring the value of Korean Confucianism by pioneering new research topics.

The Sudang award was established by Samyang Group founder Sudang Kim Yeon-su to celebrate the achievements of people who contributed to national and social development in different fields, in a bid to pass on the founder's spirit to nurture human resources and boost national industry.

Earlier, the Yangyoung and Sudang Foundations hosted a scholarship award ceremony at the Samyang Group's head-quarters on Feb. 19.

The two foundations delivered scholarships totaling 730 million won (US\$710,290) to 183 students, including

90 college students out of 23 colleges and 93 high school students. The recipients this time were selected based on the schools' recommendations among high-performing students with economic difficulties.

The very first local private scholarship foundation, Yangyoung Foundation was started by Samyang Group founder and Chairman Sudang Kim Yeon-su, while the Sudang Foundation was initiated by Chairman Kim Yeon-su and his students in 1968.

The Sudang Foundation has been giving away scholarships to nationwide middle and high schools and colleges including Masters and Ph.D. Programs, while the Yangyoung Foundation has been supporting research expenditures by selecting some 20 college professors annually.

Both organizations, via scholarships, have been helping over 20,000 students and supporting some 600 college professors with their research spending.

Moreover, by initiating the "Sudang Award," they have been granting a total of some 300 million won (US\$291,900) in prize money to people with remarkable accomplishments in basic science, applied science, and humanities and social science in May every year.

The Yangyoung Foundation scholarship and research grant beneficiaries in the past contributed a lot to local academia and industrial growth, as its long list includes leading local physicists Park Chul-jae and Lee Tae-kyu, renowned pharmacology authority Jo Kyu-chan, former Seoul National University President Yun Il-sun, and Korean literature scholar Lee Hee-seung.

As of now, the foundations' funds stand at 13 billion won (US\$13 million), and it is the company's policy that it will expand the recipient base and business fields gradually to develop them into a





The Yangyoung and Sudang Foundations host a scholarship awards ceremony on Feb. 19, 2014.

cradle of human resources for social, economic, and cultural growth.

Recently, under a management policy pursuing proactive social contributions, the company is aiding in opening up outlets of "BeautifulStores," while encouraging employees' volunteer work.

BeautifulStore is an organization that sells used donated goods, and with the revenue it runs public service and charity operations. It is establishing itself as the hub of ecological movement as well as regional living and culture.

Likewise, as part of the company's environmental awareness campaign, it has been hosting a "Nature Love: Art & Writing Festival" since 1996. It has been attracting some 10,000 people annually by featuring colorful events such as writing and art contests under the theme of environmental protection.

Samyang Holdings, after spinning off its food, animal feed, and chemical business arms to Samyang Corp. and its pharmaceutical arm to Samyang Biopharmaceuticals Corp in Nov. 2011, transformed itself to a group share holdings company that mainly runs a trading and lease business.

Hyosung Corporation

Vanguard of Sustainable Social Contributions



Hyosung Corporation is spearheading its social work via educational contributions such as "Junior Engineering Class" and "School Violence Prevention Education," while consistently expanding community work carried out by employees participating in the "Hyosung Social Volunteer Team."

Hyosung Industrial Materials Performance Group (PG) held a spring greeting event on April 18, with 40 handicapped children at Young Nak Aenea's Home in Huam-dong, Yongsan-gu, Seoul, as part of its effort to commemorate "Day of People with Disabilities."

Some 30 Hyosung employees at the event helped with children's meals and, by coupling up with the kids, enjoyed playing various games such as "zigzag relay" and "stepping stones."

Hyosung Industrial Materials PG has been visiting Young Nak Aenea's Home every month since 2012, to serve meals and other social activities, and even gave a classical music performance last August.

The event this time gave some good old exercise time to the kids, who probably could not enjoy enough outdoor activities for a while due to their physical limitations and the cold winter.

Industrial Materials PG Vice President Cho Hyun-sang said, "Hyosung has rolled up its sleeves to solidify the grounds where the handicapped can dream about their future and explore

their dreams. We will try to materialize the meaning of sustainable social contributions via Creating Social Eco-system (CSE), based on close cooperation among civilian communities, corporations, and the government. Our efforts will go beyond one-time contributions such as temporary monetary contribution."

In this light, Hyosung is consistently expanding community activities with active participation by its employees.

Since the welcoming ceremony in May 2013 for the "Hyosung Social Volunteer Team," consisting of the head office employees, the participants have been visiting four regional welfare establishments every month to help with handicapped kids on their field trips to mountains and wetlands.

Also, beginning in 2007, the company has been implementing a "matching grant" system, where an employee regularly contributes a desired amount, which gets matched up by the company, so that the funds can be used for various activities such as rice giveaways, parties for the elderly, heating bill aids, and coal sharing

Moreover, the company is chipping in educational funds, and has been running classes such as "Junior Engineering Class" targeting elementary school children.

Some 150 students from Naedong Elementary School near the company's



Changwon factory attended the "Junior Engineering Class," where scientific principles were explained in a fun way.

The class was offered as part of Hyosung's educational contribution that the company has been proceeding with to nurture a future generation of engineers and scientists by encouraging interest in science.

The science education has been ongoing for the last decade via semiannual classes, teaching over 2,000 students over the years.

In class, eight Hyosung Heavy Industries PG researchers became teachers, in helping the kids understand the scientific principles through hands-on experiments.

The class was a big hit since the students, after learning about the Flywheel Energy Storage System, could play with models and build metal detectors themselves.

Additionally, the company also launched school violence prevention education programs with 5,000 elementary school students from 50 schools in Gyeongnam, on top of a flurry of social activities including a book aid program for elementary, middle, and high schools in Changwon area and "reading golden bell" program to encourage book discussions among teachers, students, and parents. Other activities include aiding after-school programs in the neighborhoods near Hyosung factories and running hands-on engineering classes at the educational contribution exposition sponsored by the Ministry Of Education (MOE). ®

Winning Hearts with Social Contributions

Midland Power Participating in Happiness Sharing



Korea Midland Power Corporation (KOMIPO) bases its management philosophy on human beings, and it is actively getting involved in both domestic and international social contribution activities to take one step closer in becoming a global corporation.

In 2004, KOMIPO formed a social volunteer organization especially for social contribution under the slogan "Providing Hope through Love and Laughs by Sharing." Consisting of 11 branches and 114 teams, the volunteer network is funded by a fund-raising method called "matching grants," in which employees' donations from their monthly salary is "matched" by company donations. Currently, the company pays triple the total amount donated by the employees.

KOMIPO's social volunteer organization conducted all kinds of volunteer activities in the week of March 31 as a way of commemorating its foundation. During the week, they fixed houses and cleaned streams and seashores. They even collected 19 million won (US\$18,282) to give to financially underprivileged people. The department of safety quality in the main office visited islands in Chungcheongnam-do to replace old electrical systems and conduct safety checks on gas facilities. They have been doing this annually since 2011. About 70 volunteers have been put into action in areas near KOMIPO power plants to do volunteer work.

Last year, KOMIPO provided housing for financially underprivileged people, ran energy-saving campaigns in regions near power plants, and supported multicultural families under its special program called "Light of Hope, Ocean of Life."

A house building project called "The Love House" will erect its 10th building this year. Other activities include running a "One River Per Company" campaign to help conserve rivers, and conducting inspections of electricity and gas facilities in hard-to-reach regions such as islands. It is also applying

its ingenious "matching grant" fund-raising method to benefit sharing programs with related small and mid-sized enterprises (SMEs), to fund energy-related welfare activities.

Related to win-win programs with local SMEs, KOMIPO received a gold prize and a special prize from the Swiss government for a hybrid dust filter (Hi-filter), which KOMIPO submitted as an air-pollution prevention device at the Geneva International Invention Expo on April 4. The HI-filter is made by an SME called J-E Tech, and is a combination filter of electrostatic precipitation and filtering cloth. Only three countries are able to successfully make this technical device. It is eight times as effective in capturing fine dust as other electrostatic filters.

Its cutting-edge methods of social contribution are finally receiving recognition from the government. It received a grand prize from the "Adding Happiness: Social Contribution Award" for two consecutive years, and received the Minister's "Happiness Sharing People Award."

KOMIPO's efforts to strengthen the foundation for social contribution is expanding globally as well. The state-run power company has been carrying out official development assistance (ODA) projects in Indonesia in cooperation with Korean International Cooperation Agency (KOICA), including construction of elementary schools and compact-sized hydroelectric power plants, and distribution of booklets on Korea's Saemaul Movement (small village and town improvement philosophy) to encourage their independent spirit.

CEO Choi Pyeong-rak said, "Collaborative work by an SME and a public enterprise has been globally recognized. Now, we are going to work hard to make Korea proud by continuing our efforts for the creative economy."

With all these social contributions and technology development, KOMIPO is now one step forward in becoming an enterprise friendly to the public at home and abroad.

KT Restructuring

KT to Shed 8,320 Employees via Voluntary Retirement Program



Under the new leadership by Chairman Hwang Chang-kyu who officially took office as the CEO of KT on January 27, KT will slash 8,000 jobs through a voluntary retirement program. The number is the highest ever done by a local company, which accounts for about 25 percent of a total of 32,000 jobs.

The nation's second-largest mobile carrier announced on April 21 that 8,320 employees have applied for early retirement since April 10. The figure is the highest out of three voluntary retirement programs conducted by the carrier since 2003. Previously, 5,505 workers applied for early retirement in 2003, and 5,992 people in 2009.

As agreed by labor and management, employees who have worked for over 15 years are eligible for early retirement. The average age of applicants is 51, and the average number of years of service is 26. By age, people in their 50s make up the largest percentage of the total with 69 percent, followed by those in their 40s with 31 percent.

KT is going to help some of retirees get a job at some of its subsidiaries. In addition, it is planning to offer programs that support people who want to start a business or to provide consulting services for re-employment to ensure that they can plan their lives after retirement. If all applicants retire, the number of KT employees will decrease from 32,188 to 23,868. The average age of workers will also be lowered to 44.5 from 46.3.

The carrier anticipates that it could save around 700 billion won (US\$673 million) in labor costs per year because of job cuts, although business expenses in the second quarter are expected to increase temporarily owing to a one-time expense for severance pay. KT is planning to let affiliates streamline its business operations so that customer services will not be affected by the downsizing. The company is going to make other business units more efficient and to reorganize its business as well.

To secure the money for restructuring, KT tried and succeeded in issuing foreign bonds worth US\$1 billion through bidding on April 14 and 15.

The company stressed that the amount of US\$1 billion is the largest ever in the domestic corporate sector since the recent financial crisis, and the success reflects the foreign bond market participants' trust in itself. A total of 163 organizations joined the tender, and the total bidding amount was US\$4 billion.

KT has had a hard time issuing corporate bonds in Korea due to its revised report of business losses for 2013 earlier

this year, and the exposure of the 300 billion won (US\$289 million) fraud case in which KT ENS is involved. The telecoms operator, under the circumstances, turned its eyes to overseas markets, and is expecting that the successful issuance at this time will contribute to its financial structure in the long term.

KT quoted Moody's as saying, "The foreign bond issue of KT will improve its loan expiration situation and have a positive effect on its credit rating. The company's margin will show some signs of getting better for a couple of years to come, as it is striving for cost reductions by means of early retirement and the like."

The three-year bonds have a coupon rate of 1.75 percent, one percentage point higher than the U.S. Treasury Bond rate, and five-year bonds are at 1.85 percent, 1.1 percentage points higher than the rate of a five-year U.S. Treasury Bond. 65 percent of the bonds expire in three years, and the rest expire in five.

The bonds are scheduled to be issued on April 22 (U.S. time). KT is planning to spend 60 percent of the sum to refinance the foreign bonds maturing in June, while employing the rest for general management purposes.

Samsung Succession Shakeup

Construction, Chemical Divisions Hold Key to Post-Lee Kun-hee Structure of Samsung Group

Keen attention is being paid to the succession of the Samsung Group, with the adjustment of the subsidiary and shareholding structures accelerating for reorganization of ownership. The group has recently affirmed that the business adjustment as of late is only for higher corporate efficiency, but experts have a different consensus.

The most likely scenario is the establishment of a holding company led by Samsung Everland for the independence of the three sons and daughters of Chairman Lee Kun-hee through subsidiary spin-offs. At present, Samsung Everland, the de facto holding company of the Samsung Group, owns 19.3 percent of Samsung Life Insurance, and Samsung Life Insurance in turn owns 7.6 percent of Samsung Electronics.

This means that all three siblings who will lead the Samsung Group in the future are in Samsung Everland in the form of equity ownership, business participation, etc. Samsung Electronics Vice Chairman Lee Jae-yong is the largest stockholder of Samsung Everland with 25 percent of its shares; and Hotel Shilla President Lee Bu-jin and Cheil Worldwide President Lee Seo-hyeon have 8.37 percent of itsshares each, too.

It was expected that the eldest son would be in charge of the electronics and financial arms of the group, while President Lee Bu-jin takes the hotel, construction and heavy chemical subsidiaries and President Lee Seo-hyeon takes charge of the fashion and advertising businesses once the third-generation ownership is put in place. It was in this context that Samsung Everland acquired the fashion business unit of Cheil Industries and divided the food and beverage business into Samsung Welstory in September last year.

However, more recently, this scenario has begun to show some signs of change when Samsung General Chemicals and Samsung Petrochemical merged earlier this month. The share-holding ratio of President Lee Bu-jin, who used to be the largest stockholder of Samsung Petrochemical, fell from 33.2 percent to 4.91 percent through the merger, whereas Samsung C&T took first place with 33.99 percent shares, followed by the electronics subsidiaries of Samsung Techwin (22.56 percent), Samsung SDI (9.08 percent), Samsung Electro-Mechanics (8.91 percent), and Samsung Electronics (5.28 percent). Under the circumstances, the vice chairman is expected to get the chemical business division as well as electronics.

Nonetheless, it is also said that her influence on the petro-



Lee Jae-yong, Lee Bu-jin, and Lee Seo-hyeon, the joint inheritors of Samsung Group.

chemical business of the Samsung Group is still high, because she remains the largest individual shareholder of the merged corporation. She is considered to have established a bridgehead to Samsung Total, the largest petrochemical affiliate in the group, by means of her shares in the corporation as well.

The appointment of a new owner of the construction arm, which will be the highlight of business reorganization, is beyond prediction for now, too. Samsung SDI acquired Cheil Industries late last month to become the largest stockholder of Samsung C&T and Samsung Engineering, the two pillars of the group's construction business. With Samsung Engineering shares of Samsung SDI having been handed over to Samsung C&T last year, Samsung C&T becomes the largest shareholder of Samsung Engineering with 20.91 percent shares. This will happen once the Samsung Engineering shares acquired through the merger with Cheil Industries are transferred to Samsung C&T, and then ownership takes the shape of Samsung Electronics-Samsung SDI-Samsung C&T-Samsung Engineering. This implies the construction segment, which was regarded to end up in the hands of Lee Bu-jin, will fall under Lee Jae-yong.

In short, the succession process is likely to take concrete shape, as the owners of the construction and chemical divisions are fixed. This is why Samsung C&T is in the limelight these days. The company is considered to hold the key to the reshaping of both segments in that the new owner of the company will take control of both the construction and the chemical divisions

"Samsung C&T has emerged as the center of the discussions of succession through the recent business reorganization," an industry source explained, continuing, "It seems that the one who controls Samsung C&T will be the biggest beneficiary."



Samsung's Performance

Samsung Electronics Recorded Betterthan-expected Profits in Q1 This Year

Samsung Electronics announced on April 29 that it recorded 8.49 trillion won (US\$8.23 billion) in operating profits on a consolidated basis in the first quarter of this year. The amount is 3.31 percent less compared to the 8.78 trillion won (US\$8.51 billion) of Q1, 2013 but 2.14 percent higher than the 8.31 trillion won (US\$8.05 billion) of Q4 last year.

Quarterly sales reached 53.68 trillion won (US\$52.04 billion) during the period, edging up 1.53 percent from Q1 of last year and declining by 9.45 percent when compared to Q4, 2013. The current net income increased by 3.74 percent quarter-on-quarter and 5.86 percent year-on-year to 7.57 trillion won (US\$7.33 billion).

The figures announced on April 29 are final. The tentative amounts, made available on April 8, were 53 trillion won (US\$51 billion) in sales and 8.4 trillion won (US\$8.1 billion) in operating profits. The 25 local securities firms had estimated the turnover at, on average, 8.46 trillion won (US\$8.2 billion).

Samsung Electronics' business profits plunged no less than 18.3 percent

quarter-on-quarter in Q4 last year to shock market participants. However, it has succeeded in dispelling their worries this time. Most of them appear to be relieved at the most recent business showings, though the profit is not as large as that of Q3, 2013 at 10.16 trillion won (US\$9.8 billion).

The performance was led by its wireless device and memory semiconductor business units, even though the demand for its products was rather slow due to seasonal factors. By business unit, the IT and Mobile (IM) Division recorded business profits of 6.43 trillion won (US\$6.23 billion) with its Galaxy series of handsets. The division's profits had dipped below 5.5 trillion won (US\$5.3 billion) in Q4 last year, but rose to well over 6 trillion won in the following quarter, close to the 6.51 trillion won (US\$6.3 billion) posted in Q1, 2013. The Galaxy S4 and the Galaxy Note 3 enjoyed a lot of popularity along with mid-market models including the Galaxy Grand 2 and the Galaxy Ace 3.

In the meantime, the Device Solutions (DS) Division reached 1.87 tril-

lion won (US\$1.81 billion) in profits with the semiconductor arm's profits amounting to 1.95 trillion won (US\$1.89 billion), but the display business unit remaining 80 billion won (US\$77.6 million) in the red due to the seasonal decline in panel demand and drop in sales price. The DRAM unit improved its profitability by means of the process conversion to the 20 nanometer scale.

The Consumer Electronics (CE) Division earned 190 billion won (US\$184 million) during the same period. The size of the profits somewhat shrunk from the 650 billion won (US\$630 million) of Q4 last year.

"Although the low season continues until the second quarter, the demand for memory semiconductors and display panels for new mobile products is likely to show upward movement with major sports events such as the Brazil World Cup," said the company, adding, "Under the circumstances, we will maintain our performance in the IT sector while further improving our business figures in the memory and consumer electronics segments."

Export of Smart Grid

KEPCO signs MOU with KT for Smart Grid Technology Development and

Global Expansion

The Korea Electric Power Corporation (KEPCO) signed an MOU on smart grid technology development and global expansion with KT on May 14 in KEPCO's headquarters in Seoul to create a new market for the implementation of the creative economy by combining electricity and telecommunication.

By combining their respective strengths in electricity and information communication technology (ICT) based on the core competencies and technologies for nationwide implementation of a smart grid and active market, the two companies will contribute to the economic growth of the nation and extend their benefits to the people. They will also advance together into the global market by developing a new business model fit for the creative economy based on technology convergence.

For this, the two companies set five areas to work together. The first is developing an electric-ICT convergence smart grid service. Secondly, they will mutually cooperate on a smart grid expansion project and intelligent demand side management field. Third, both will engage in cooperative development and expansion of the global market using the strengths of smart grids. Fourth will be cooperative execution of mid-to-long-term research assignments and technological development in the electricity-ICT convergence field. The last will be discovering other areas in which the two companies can work together. To start the actual cooperative project, they decided to form a "working group," which experts from both sides can join to work together.

At the event this day, CEO Jo Hwan-ik said, "I think the MOU with KEPCO will contribute to developing a fantastic business model that matches the creative economy by combining our top technology and brand power in electricity and telecommunication each," and added, "I expect to see both companies playing active roles in reaching 49 trillion won (US\$ 47.7 billion) worth of exports by 2030, which is the government's goal in the smart grid national roadmap, once their business model starts to work in the global market."

Hwang Chang-gyu, Chairman of KT, said, "By having a smart grid spread throughout the country with great cooperation between our two companies, we will be able to revolutionize the system of energy production, consumption, and trade to decrease the total energy consumption by 15 percent by 2035, and become a leading role in activating all related industries in Korea." He also added, "KT will certainly go ahead with the ICT-based smart energy business with the business with KEPCO starting, and is planning to make this business a



mid-to-long-term growth business by creating a smart energy industry ecosystem through cooperation with related ventures and SMEs."

In the future, the two companies plan to contribute to activating the smart grid market in Korea and helping related domestic companies advance together into the world market, so that they can be called one success case of the creative economy by building a partnership between an electrical energy company and ICT company.

Overview of Jeju Smart Grid Substantiation Business

- Overview of Substantiation Business
- Location: Jeju-do Gujwa-eup (Northeast Jeju District) area
- Size: 5 areas, 2 substations, 4 distribution lines, 3,000 customers
- Period: 09.12-13.5 (42 months)
 Implementation: December 2009-May 2011
- Management stage: June 2011-May 2013
- Participants: 12 consortiums and 168 companies
- Budget: 246.5 billion won (US\$240 million) [government 73.9 billion won (30 percent), KEPCO 23.9 billion won (10 percent), private 148.7 billion won (60 percent)]
- Major Commercialized Model

There are six commercialized models such as intelligent electronic equipment, electrical grid connection technology, energy storage technology, energy management system (EMS), recharging infrastructure technology, and Intelligent electricity

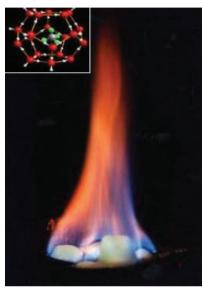
Participation by Consortium

Projects	Company in Charge	No. of Companies Participating	Cost (hundred millions of won)
Smart Power Grid	KEPCO	10	324
Smart Place	KEPCO	29	132
	SK Telecom	23	278
	KT	19	334
	LG Electronics	9	232
Smart Transportation	KEPCO	21	196
	SK Innovation	10	189
	GS Caltex	10	145
Smart Renewable	KEPCO	16	175
	HHI	6	115
	POSCO ICT	8	130
Smart Elec. Service	KEPCO/KPX	7	215
Total		168	2,465

Dream Energy Source

Methane Hydrate May Ignite New Energy War in Asia





Worries are mounting that methane hydrate, touted as a dream energy source, could spark a new energy war in Asia.

U.S.-based magazine "Foreign Policy" recently pointed out that, "The fact that a bulk of methane hydrate is buried under the center of Asia's territorial dispute is a big misfortune for the surrounding nations," meaning that the new energy source turns out to be a new factor that could exacerbate territorial conflicts among major energy-importing countries like Korea, China, and Japan.

Methane hydrate is a solid crystal in the form of ice that is formed when water and gas meet at high pressure and low temperature. It is compressed gas, which in gaseous form would be 160-170 times that of its solid mass, making it an ideal future energy source.

However, some data points to a rosier outlook in that its massive burial, up to 700,000 trillion cubic feet, is distributed evenly all around the world, dispelling concerns about the possible international dispute.

However, the energy source, nick-

named fire ice, could fuel the conflict especially in Asia.

This is because Korea, China, a.nd Japan top the list of countries that import the greatest amount of energy sources. According to the U.S. Energy Information Administration (EIA), as of 2012 China is the number 2 crude oil importer, followed by number 3 Japan and number 5 Korea. In natural gas imports, Japan and Korea top the list as numbers 1 and 2.

The three energy consumption giants are trying to be less dependent on energy imports by actively mining methane hydrate, but the big three and even other South East Asian countries are entangled in a territorial dispute.

As for the major methane hydrate deposit sites, experts cite the Senkaku Islands, the southern part of the South China Sea, and the East Sea as the epicenter of intense territorial tension.

In fact, according to the Nihon Keizai newspaper, China's marine department and geological survey department launched a full-fledged methane hydrate energy probe last month in the South China Sea, causing a big backlash from territorial disputing countries such as Vietnam and the Philippines.

The Chinese government is set on reinforcing the probe and research system to commercialize the energy source by 2030.

The Japanese media quoted a Chinese expert as saying that the methane hydrate burial amount in the South China Sea is estimated to be enough to sustain China for the next 130 years.

Japan also joined in by sending its probe vessel to the East Sea at the beginning of April.

It has been already confirmed that the methane hydrate that is buried under the East Sea, near Dokdo Island, could feed Korea for 200 years.

Experts predict that it will take 10-20 years for methane hydrate to be commercialized. However, on the back of Japan's success in the first mining of the energy source at the beginning of last year, its commercial viability is looming closer on the horizon.

Coming Home

Low-wage-based Overseas Production Era Over Soon



Fewer companies are moving their production bases overseas.

Companies used to flock to China or Southeast Asian countries such as Vietnam to secure price competitiveness, but they have run out of countries to move to. It has been analyzed that the low-wage-based overseas production era has practically come to an end.

According to Korea Customs Service's data on May 6, companies that moved their production facilities or factories overseas in the form of reporting overseas investment to their main transaction banks have drastically shrank from 1,149 in 2002 to 125 in 2013, showing a sharp drop to 10% over the decade.

The trend previously was increasing. During the 1998 financial crisis, 666 companies moved production overseas, and by 2000 850 companies followed them. By 2002, 1,149 had fled for the Tropics.

However, with the turning point of 2002, the number fell to 878 in 2004, 371 in 2008, and 125 in 2013, showing a sharp decline.

The figures have been compiled by Korea Customs Service based on "overseas investment exports" that invests spot goods such as facilities after reporting Foreign Direct Investment (FDI) and "industrial facilities" that export upon getting an approval from The Ministry of Trade Industry and Energy in accordance with overseas trade law.

The government's statistics show that FDI has ballooned in size on the back of large corporations such as Samsung Electronics and Hyundai Motor Company building overseas factories for localization, while the companies that pursue low-wage-based overseas expansion are dwindling in numbers.

Experts foresee that the trend will continue in the offing because the merits of overseas production have virtually vanished.

So far, countries such as China and Southeast Asian countries such as Vietnam and Cambodia seemed like a life saver for companies, since they provided cheap labor that could replace expensive local labor.

Cheap labor was a factor that could more than offset local uncertainties about related laws, regulations, and political instability. However, now the appeal has been lost, once these countries saw rapid economic growth accompanied by soaring labor costs and strengthened in labor and environment regulations.

Korea Small Business Institute (KOSBI)'s Senior Researcher Lee Jun-ho says, "The biggest factor is that the overall expenditures such as labor and land have shot up in nations such as China. Best alternatives could be Indonesia, Malaysia, and Vietnam, but the costs have risen significantly even in these countries making them almost equally unattractive for overseas production."



Brand Value

Local Manufacturing Patent Value on Sharp Rise

As of 2011, 4,319 local manufacturing companies' patent values and brand values amounted to 79.2 trillion won (US\$77 billion), and 166 trillion won (US\$161 billion) respectively.

On May 6, the Korea Institute of Intellectual Property (KIIP)'s research member Im So-jin revealed the figures, the outcome of "local patents and brands' economic valuation research."

The figures grew from the previous year (2010)'s patent value of 60.7 trillion won (US\$59 billion), and brand value of 163 trillion won (US\$158 billion), up 18.5 trillion won (US\$18 billion) and 3 trillion won (US\$2.9 billion), respectively.

Among the companies' intellectual property, patents and brands accounted for 12.4 percent and 26.9 percent.

In patent valuation, Samsung Electronics topped with 18.9 trillion won (uS\$18.3 billion).

The runner up was LG Electronics with 8.9 trillion won (US\$8.6 billion), followed by SK Hynix with 7.7 trillion won (US\$7.5 billion), Samsung SDI with 5.3 trillion won (US\$5.1 billion), Hyundai Motors with 4.2 trillion won (US\$4.1 billion), Samsung Electro-Mechanics with 3.9 trillion won (US\$3.8 billion), LG Chem with 3.33 trillion won (US\$3.2 billion), POSCO with 3.32 trillion won

(US\$3.2 billion), LG Display with 2.4 trillion won (US\$2.3 billion), and Samsung Heavy Industries with 2.6 trillion won (US\$2.5 billion), going from 2nd to 10th.

Samsung Electronics secured the number one spot for two years in a row on the back of its increased patent value of 5.6 trillion won (US\$5.4 billion).

Among the top 10, three companies, LG Chem, LG Display, and Samsung Heavy Industries, went up one step from the previous year.

Samsung Electronics also kept its number one position from the previous year in brand value, with 15.2 trillion won (US\$14.8 billion) to be trailed by Hyundai Motors with 9.2 trillion won (US\$8.9 billion), Kia Motors with 8.3 trillion won (US\$8.1 billion), LG Electronics with 4.3 trillion won (US\$4.2 billion), GM Korea with 2.9 trillion won (US\$2.8 billion), KT&G with 1.6 trillion won (US\$1.5 billion), and Hyundai Heavy Industries with 1.3 trillion won (US\$1.27 billion). Previous year's 2nd and 3rd ranking Kia Motors and Hyundai Motors switched places and Hyundai Heavy Industries saw a large upswing in brand value by climbing 7 steps.

The research this time targeted 4,319 manufacturing companies with asset size over 7 billion won (US\$6.8 million) by altering and applying Simon&Sullivan model, a financial approach methodology that uses objective figures of companies' balance sheets.

Fighting Trolls

LG Gets Ruling from US Supreme Court

The Supreme Court of the United States (SCOTUS) ruled in favor of LG Electronics in a case between LG and "patent troll" InterDigital related to the renewal of their patent license agreement. It is the first time for a Korean company to win a case at SCOTUS.

According to industry sources on May 7, SCOTUS recently stated that the dispute between LG and InterDigital could be resolved through arbitration,

invalidating the decision made by the US Court of Appeals.

Previously, the patent troll brought a lawsuit against the Korean tech giant to the US International Trade Commission (ITC) in 2011 for patent fees. ITC ruled that the case between InterDigital and LG must be arbitrated by accepting LG's arguments. However, the Federal Circuit reversed ITC decision, ruling that a lawsuit is also possible by accept-



ing InterDigital's claims.

Given that SCOTUS has overturned the lower court's decision and ruled that it is invalid to precede negotiations with filing a lawsuit, it will no longer be easy for non-practicing entities, or "patent trolls," to successfully execute a strategy to demand excessive royalties using lawsuits as a weapon. @

Expanding Market

American Car Giants Import More Korean Car Parts

It turns out that American automobile companies such as General Motors (GM) and Ford are importing more and more Korea-made car parts.

According to a report published by the Korea Trade-Investment Promotion Agency (KOTRA) titled "American Automobile Part Industry Trend", GM is to expand its imports of Korean car parts from approximately US\$700 million per annum to US\$1 billion by 2016.

With this plan in mind, the car giant is also reviewing the possibility of sending its headquarters' global purchasing staff to GM Korea.

Ford, in the meanwhile, will augment its usage of Korean car parts by more than 20 percent for the

next decade, while Chrysler has already boosted the number of Korean car part suppliers to 100 last year and is planning to add more affiliates in the offing.

The report stated that America's big three automakers are actively expanding their purchase of Korean car parts in the wake of implementing the Korea-America Free Trade Agreement. They tend to



import more environmentally-friendly car parts such as batteries, inverters, and other lightweight materials.

The report also pointed out that American automobile companies that sell final products emphasize quality and technology competitiveness rather than price, so the local industry needs to enhance their technology through R&D.

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OSHA Inspections

US Government Conducts Inspections of Korean Auto Makers

It was confirmed that the US federal government is conducting workplace inspections of Korean auto makers in the nation.

The United States Occupational Safety and Health Administration (OSHA) recently made an unexpected visit to Korean auto manufacturers in the southeast region, and conducted inspections on working conditions and work environments.

On March 18, OSHA sent its compliance officers without notice to five partner companies of Hyundai Motor that supply auto parts to Hyundai Motor Manufacturing Alabama, an automobile factory located in Montgomery. They investigated the work environments and listened to problems that employees experience at work.

The federal agency is reportedly going to investigate Korean auto companies in Georgia as well, in which Kia

Motors Manufacturing Georgia is located.

There are auto parts manufacturers of Hyundai Motor Group such as Hyundai MOBIS and Hyundai Powertech in Georgia, along with other mid-sized Korean companies that supply auto parts to Kia Motor's facility including Mando, Daehan Solution, and Sewon.

On April 22 (local time), Bill Fulcher, director of OSHA's Atlanta-East Area Office, met with Korean businessmen, explained the purpose of the inspection, and asked for their cooperation.

Korean companies in the US are monitoring the situation closely. Some said, "The honeymoon with the US is over," and "The federal government's inspection is politically driven." An official working for a large Korean company remarked, "I anticipated that OSHA inspections would be initiated because the Obama administration amended the

nation's labor law last year so that some members of the United Automobile Workers union can gain access to foreign companies as outside experts." The official added, "Industry analysts are saying that the inspections are politically motivated, since President Obama, who had the support of labor unions in both his White House election campaigns, appears to have the intention of giving a gift to the unions before his departure."

Meanwhile, a spokesperson for the Korean Consulate in Atlanta explained, "OSHA inspections target auto companies in three states of the southeast region—Alabama, Georgia, and Mississippi." The spokesperson added, "The inspections also involve other foreign companies such as Japanese and German firms. So, it is difficult to say that our country is particularly targeted for inspection."

Record Broken

Import Car Sales Renewed Records Last Month

The Korea Automobile Importers and Distributors Association announced on May 9 that the number of registered foreign cars grew 25.5 percent year-on-year to reach 16,712 as of April, up 13,320 units from the previous year.

As a result, the April figure exceeded the prior record in March. The number of imported cars sold between Jan. to April of this year was 61,146, a 26.6 percent year-on-year gain.

Per brand, BMW nabbed the top spot with 3,625 vehicles, followed by Mercedes-Benz (3,310 vehicles), Volkswagen (2,609), Audi (1,980), and Ford (799). The top 5 brand rankings were not changed much, but exponential growth of Japanese cars was noticeable from 6th place. The 6th, 7th, 8th, and 9th spots were taken by Lexus, Toyota, Nissan, and Honda, respectively.

In particular, much attention was

paid to the fact that Nissan posted month-on-month growth of 79.4 percent. A special promotion event held in April to commemorate the 10th anniversary of Nissan Korea appears to be a big factor in the company's stellar sales growth.

In contrast, Audi saw its sales figures decrease 19.4 percent month-on-month owing to various unfavorable factors including a recall campaign. In fact, the automaker was indicted for using an auto part that exceeds the exhaust emission standards for road vehicles and fined 1 billion won (US\$976,000) by the Ministry of Environment last month.

The Mercedes-Benz E 220 CDI became the best-selling model in April with a sales volume of 628 vehicles. The model recaptured the number one position for the first time in seven months. The unwavering number one BMW 520d lost its iron-fisted grip of the Kore-



The Mercedes-Benz E220 CDI, the best-selling import model in Korea in April 2014, beating the previous title-holder, the BMW 520d

an market, since just 599 vehicles were sold last month. The Volkswagen Tiguan 2.0 TDI BlueMotion was in the third spot, enjoying continuous popularity in the nation.

By engine type, 11,254 diesel cars were sold last month, making up 67.3 percent of the total. Gasoline cars accounted for 28.4 percent with 4,753 units, and hybrid cars comprised 4.2 percent with 702 vehicles. The popularity of diesel cars continues to show an upward trend. The number of diesel-powered automobiles registered during April represented 67.3 percent, up 6.9 percent from a year ago.

World's Safest Car

Hyundai Genesis Picked as Safest Passenger Car in the World

The new Hyundai Genesis has attained perfect scores across all 29 segments of a collision test by the Insurance Institute of Highway Safety (IIHS), becoming the first passenger car to ever do so.

The IIHS included the new Genesis into the category of Top Safety Pick+ on May 7 (local time). At present, Volvo's S60 and S80, the Honda Accord and some others are in the TSP+ category, but the new Genesis is the first passenger car in the world to win top marks in all segments.

In addition, the new Genesis won

the highest marks in the Small Overlap Frontal Crash Test of the IIHS that has been in place since 2012. The test is carried out by having only the front part of the driver's seat crashed at a speed of 64 km per hour. Even the most popular models of leading global automakers have failed to pass the test.

"The excellent test results can be attributed to the ratio of advanced high strength steel of as high as 51.5 percent, the autonomous emergency braking system, the nine-airbag system and the like," Hyundai Motor Company explained, adding, "The results will be



a boon for the expansion of the sales of the new Genesis down the road."

The IIHS is a non-profit vehicle safety organization jointly managed by 80 or so U.S. Insurers, and its collision tests are known to be even stricter than those conducted by the U.S. government.

2 Birds 1 Stone

Car Loan Companies of German Automakers Very Successful in 2013

The specialized credit financial businesses of German automakers in Korea enjoyed explosive growth last year, thanks to the surge in sales of their parent carmakers such as BMW, Audi, and Mercedes Benz. Still, their rapid growth is attributed to not just the skyrocketing sales but also their higher loan interest rates.

According to the Data Analysis, Retrieval and Transfer System (DART) of the Financial Supervisory Service, BMW Financial Services Korea's annual sales increased 8.73 percent year on year to 622.5 billion won in 2013 (US\$600.2 million). Its operating profits amounted to 40.9 billion won (US\$39.5 million) during the same period, way over those of BMW Korea at 25.7 billion won (US\$24.8 million). The car loan provider recorded an operating profit rate of 6.58 percent, whereas BMW Korea posted 1.35 percent with total sales of 1.907 trillion won (US\$1.838 billion).

Mercedes Benz Financial Services Korea reached 367.5 billion won (US\$354.2 million) in sales and 19.3 billion won (US\$18.6 million) in operating profits last year. The profit rate was 5.27 percent, higher than the 3.11 percent of Mercedes Benz Korea, too.

Volkswagen Financial Services Korea recorded profits for the first time since its inception in 2010. Its sales jumped 223.5 percent from a year earlier to 188.7 billion won (US\$181.9 million), and the profits were close to 12.3 billion won (US\$11.9 million). The company enjoyed a profit rate of 6.55 percent to lead that of Audi Volkswagen Korea by a margin of 4.66 percentage points.

The high profit rates of the three can be attributed mainly to the rapid expansion of the imported car market and their high-rate loans. The market grew



19.6 percent with a total of 156,497 new imported cars registered in 2013 alone. The three German automakers accounted for 105,580 of the total with a sales growth rate of 26.3 percent.

In particular, Volkswagen and Audi sold 25,649 and 20,044 vehicles to grow 39.4 percent and 32.5 percent year-on-year, respectively. BMW sold 33,066 cars to record a market share of 21.1 percent and remain on top of the list for five years in a row. Mercedes Benz sold 24,780 vehicles to grow 21.5 percent.

"These days, the automakers and their installment and lease providers are showing rapid growth at the same time," said an industry source, adding, "Most customers prefer their services for convenience, which is adding speed to the expansion."

It is estimated that approximately 80 percent of their customers choose such financial products, with most loan providers limiting their services to the cars supplied by their parent companies. However, they apply much higher loan





rates to their customers than other firms like Hyundai Capital and Aju Capital. For example, Volkswagen Financial Services Korea gives a rate of 10.2 percent to those who purchase the Golf, priced at 33.4 million won (US\$32,197), whereas another firm gives 7.8 percent.

According to NICE Information Service, the combined assets of the three lease companies and Toyota Financial Korea more than doubled during the last five years. "These companies provide their associated dealers with contract-based incentives along with various promotional programs in order to expand sales," a representative o the credit rating agency explained, adding, "Their rapid growth is forecast to continue for a while."

Next Battlefield

Global IT Giants Eyeing Smart Car Market

Competition among leading global IT companies such as Samsung Electronics, Google, and Apple is heating up in the smart car market.

According to market research firm Strategy Analytics, the market is estimated to reach approximately US\$274 billion in size by 2017, and the ratio of electronic components to vehicle manufacturing costs is expected to amount to 40 percent in 2015 and 50 percent in 2020.

"It is said that those dominating the smart car market will hold a dominant position in the global IT market in the future," said an industry expert, adding, "It is only a matter of time that electronics companies like Samsung Electronics and LG Electronics enter the smart car industry on a full scale."

At present, it is Samsung Electronics, Google, and Apple that are leading the competition. Google has worked on its Google Car for years, although the company itself does not manufacture vehicles. The Google Car is a software development project for unmanned driving. The program has been built into a Toyota Prius and some Lexus models for test driving. Co-founder Sergey Brin has recently declared that the Google Car will be available for general consumers within five years.

Samsung Electronics is concentrating its enterprise resources on the same goal, too. It has signed telematics software supply contracts with Tata Motors, the largest automaker in India. Telematics, which is a key technology for smart cars, can be defined as a multi-functional platform for an in-vehicle Internet connection. Samsung is working closely with other carmakers like BMW as well.

In the meantime, Apple is developing iOS for cars, which connects an

iPhone with a vehicle. The company is planning to use its mirroring technology with Honda's vehicles like the Civic MY 2014 so that drivers can view their iPhone screens on the dashboard, send voice calls, use Internet services, and view driving information.

LG Electronics is also trying to enter the market. It has recently established the Vehicle Components Division to this end. Although currently focusing on infotainment using audio and navigation systems, the division is going to expand the scope of business to electric vehicle development in the framework of the inter-subsidiary Vista Project.

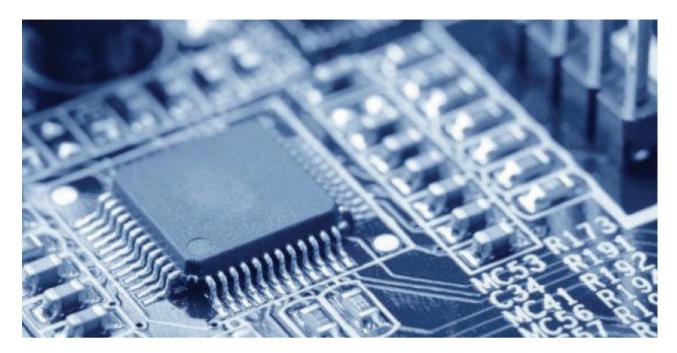
The heated competition is likely to give a whole new aspect to the dynamics of the market. For example, it is said that Apple is mulling over merging with Tesla Motors. If Apple, which is falling

behind when it comes to smart car patents, acquires Tesla Motors for US\$160 billion, it can turn itself into a powerhouse in the industry in no time. Google, on its part, is moving ahead with a joint research project for unmanned vehicles with Tesla in order to keep Apple at bay. Samsung Electronics and LG Electronics are also expanding their cooperation with automakers to cover a wide range of fields not limited to electric vehicle battery development.

Such collaborations are likely to accelerate down the road to the entire range of smart car technologies. "Huge synergy effects are anticipated through cooperation between IT companies and automakers," an industry source explained, continuing, "Then, the traditional automobile market will take a totally new shape."







Rising Profits

Exponential Growth of Global Semiconductors Led by Samsung, SK

The global semiconductor market is seeing phenomenal growth driven by a handful of corporations in the U.S. and Korea.

According to the Semiconductor Industry Association (SIA)'s announcement on May 5, the global semiconductor industry recorded the highest ever first quarter revenue this year at US\$78.5 billion.

Last March's sales stood at US\$26.2 billion, up 11.4 percent year-on-year, and saw an increase from Feb.'s sales of US\$26 billion.

By region, for the first time in three years, sales grew evenly throughout the world, but most noticeably in America and Asia.

Compared to last year, by region, the highest growth was recorded in America with 16.1 percent, followed by the Asia-Pacific led by Korea and Taiwan with 12.9 percent.

Sales edged up also in Europe (8.0 percent) and Japan (0.4 percent) year on year.

Compared to last year's fourth quarter, sales slipped in Japan and the U.S., while they continued apace in Europe and Asia.

American and Japanese markets saw sales dipping at 12.2 percent and 3.8 percent respectively, while Europe and Asia-Paciifc saw increments of 3.9 percent and 1.4 percent, respectively, reflecting an economic warm-up in the European market.

The upswing trend is anticipated to be a boon for local companies such as Samsung Electronics and SK Hynix, since the market for their flagship memory semiconductor products is somewhat saturated.

Korea Investment and Securities' researcher Seoh Won-sok said, "The DRAM industry went through an extreme case of a business cycle, ending up wedging a big gap between industry leaders and followers in the meantime. 26 companies in the 1990s dwindled to Samsung Electronics, SK Hynix, and Micron Technology now. Therefore, profit maximization in these companies is anticipated via investment regulation easing, production volume control, and price stabilization."

The companies' figures seem to validate the opinion. Samsung Electronics' sales and operating profits in the first quarter jumped by 9.4 percent and 82.2 percent, respectively, while SK Hynix's sales and operating profits surged 34.6 percent and 348.9 percent, respectively, in the cited period.

SIA CEO Brain Toohey said recent semiconductor sales are encouraging, but one threat to the semiconductor market's continued growth is the "the innovation deficit - the gap between needed and actual federal investments in research and higher education." He said that policymakers should act swiftly to close the innovation deficit by committing to "robust and sustained investments in basic scientific research and higher education."

Sleeping with the Enemy

Samsung Places Large Order with Rival Qualcomm



Qualcomm's Snapdragon system-on-chip application processor is designed to be used in smartphones, tablets, and smartbook devices.

Samsung Electronics is seeking to court Qualcomm, a global giant in system semiconductors. The tech giant has judged that, to beat the crisis in the system semiconductor business, it inevitably needs to secure orders from Qualcomm, which is a rival and at the same time its largest potential client.

Qualcomm is a number one company in mobile application processor (AP) production as it captured a 53.6 percent market share (in sales) in mobile APs, which are used for smartphones and notebook computers.

Qualcomm is a fabless company, which means the company does not have its own production facilities and instead only designs and develops semiconductors. Its actual production is assigned to external foundries.

In this regard, Qualcomm is Samsung Electronics' rival in terms of mobile AP development, but at the same time a client from whom it needs to secure large amounts of foundry production

In particular, the number one handset company recently has been struggling in the foundry market, as it was defeated by Taiwan Semiconductor Manufacturing Company Limited (TSMC), the world's largest foundry.

According to market research agency Gartner, Samsung Electronics' market share in the foundry market last year

halved at 5.7 percent compared to two years before. In the meantime, TSMC solidified its number one spot with 46.3 percent last year by taking most of Qualcomm's orders.

In a bid to beat the crisis, the tech giant secured Qualcomm's foundry orders.

In this light, the company is constructing "line 17" solely for system semiconductor production within its Hwaseong production facilities, to be operated in the second half of the year.

The site is scheduled to produce mobile AP chips using state of the art processing method "14 Nano FinFET" technology developed by Samsung Electronics.

14 Nano FinFET is a technology that can shrink the chip size up to 15 percent compared to existing 20 nanoscale technology, thereby reducing electricity consumption by 35 percent while improving the performance by 20 percent.

On the same note, the global tech company also recently decided to provide 14 Nano FinFET technology to its foundry competition "Global Foundries."

Global Foundries is the global number two in the industry, next to TSMC, and currently provides mobile APs to Qualcomm. Samsung's move this time is considered to be a stepping stone in its effort to secure Qualcomm as its client.

Nand Flash Factory in China

Samsung's Global Tri-lateral Semiconductor Production System Completed

Samsung Electronics launched its mass production of 10-nano NAND flash memory chips after completing its semiconductor factory in Xian, China on May 9.

Building the Xian factory was the largest ever investment for a local company, amounting to US\$7 billion. It is also the record amount for any foreign company to invest in China for a single project.

The tech giant, on the morning of the same day, held the inauguration ceremony, attended by Party Secretary Shanxi Sheng, Korean Ambassador to China Kwon Young-se, and Samsung Electronics CEO Kwon Oh-hyun.

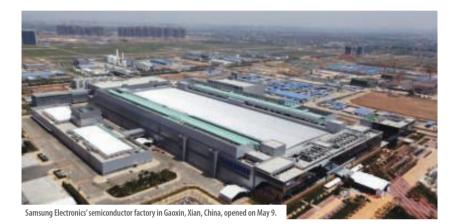
Samsung Electronics CEO Kwon said, "In the past, Xian served a pivotal role in cultural exchange between the West and the East as it was the starting point of the Silk Road. On a similar note, we hope that this place will be a starting point of the 21st Century Digital Silk Road, a fruit born out of cooperation between Korea and China."

The Xian factory is the company's first semiconductor manufacturing line established in China.

The company is to wrap up its post process (semiconductor test and packaging) line by the end of the year, to complete a perfect one-stop manufacturing system.

The chipmaking giant will efficiently deal with the market and customers by producing and providing NAND flash products in China, which accounts for 50 percent of the world's NAND flash demand.

The CEO said, "China produces 80 percent of the PCs that are sold world-wide. Our clients that produce electronics goods in China requested that semi-



conductor chips be made in China."

The tech company, upon operating the Xian memory chip factory on the heels of building its factory in Austin, Texas, has now established a "tri-lateral global semiconductor manufacturing system."

The system aligns system semiconductors focused in the U.S., memory semiconductors focused in China, and Korea that produces and controls all semiconductor products.

The company's Xian memory semiconductor factory took about 20 months to complete after its groundbreaking ceremony in September 2012. The 1.1 million m2-sized wheat field, equivalent to 100 soccer fields, was transformed to 20 state-of-the-art semiconductor manufacturing buildings and related facilities.

Its annual sales are expected to reach US\$5 billion according to the company.

Samsung's invention V-NAND flash vertically stacks the cells, compared to existing models where information is stored on a single level. Therefore, V-NAND flash gives twice the speed while using half the electricity.

Kim Ki-nam, general manager of the

Semiconductor R&D Center at the company, said, "We have been test operating the Xian factory and assessed that its productivity was almost as high as that of Korean factories. The production volume will be flexibly determined by the market status and the demand. Initially, we will produce 70,000 sheets a month in case of 300 mm wafers, but we will get up to speed in the last quarter by producing 100,000 sheets monthly."

The Chinese government helped with unprecedented enthusiasm when building the factory. It took only 88 days for the company to get the permit after it applied for its Xian factory construction. A Samsung insider let on, "The administrative process that can take as much as one year took three months. This must be a record."

Similar enthusiasm can be also witnessed in the newly-named "Samsung Road," the road linking the Xian factory and its adjacent highway.

China, in return of their unsparing support, secured 13,000 jobs. The local chipmaker is to hire 2,000 people at its Xian factory, and 160 affiliates that have current or future presence in Xian will

mobilize 11,000 people. On top of this, the global chipmaker, together with its local affiliates in Xian, can secure their future growth drive by establishing a global operating system.

Currently, some 60 local affiliates are in Xian, but they are anticipated to

proliferate by as many as 100 in the offing.

Recently, the tech company is expanding more actively overseas than locally.

Last month, it completed its application processor (AP) factory in Austin

and its Liquid Crystal Display (LCD) factory in Suzhou, China. Locally, in Hwaseong, Gyeonggi-do, its "Semiconductor Line 17" is under construction, being scheduled to be completed by the end of the year.

NAND Flash War

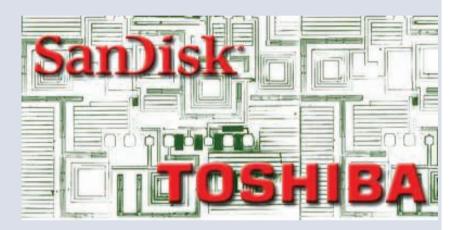
Toshiba, Sandisk Partnership to Mount Serious Challenge to Samsung

Many computer memory chipmakers worldwide are said to be working to enlarge plants that produce NAND flash memory chips.

According to the San Kei Shimbun on May 12, Toshiba, the world's secondlargest NAND flash memory chipmaker, decided to make an investment in a 3D V-NAND flash memory production facility in partnership with US-based semiconductor company SanDisk. Both companies are going to equally share the cost of the investment and inject 700 billion ven (7.419 trillion won, US\$6.843 billion) for three years at the Yokkaichi Operation plant, the company's memory production facility in Mie prefecture, Japan. At first, they estimated the amount at 400 billion yen. However, it nearly doubled after the two firms agreed to invest in the construction of a new facility and the replacement of the existing one.

An increase in investment can be interpreted as Toshiba's willingness to not lag behind its rival companies like Samsung Electronics, SK Hynix, and Micron. Given that Samsung completed the construction of its 3D V-NAND production facility in Xian, China on May 9, competition between Korean and Japanese firms to dominate the nextgen semiconductor memory market is expected to heat up again.

Samsung began to mass-produce 3D V-NAND flash memory chips in its plant in Xian. 3D V-NAND flash memo-



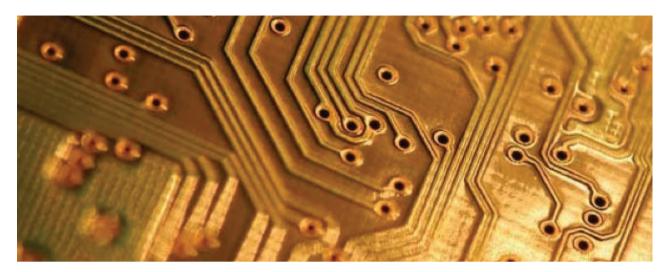
ry where 40nm-class NAND flash memory is stacked up in 24 layers are twice as fast and last 10 times longer than 20nm-class planar NAND flash memory. The world's largest computer memory chipmaker is planning to dominate the market by developing 3D V-NAND flash memory chips in a 36-layer stack soon.

SK Hynix, the world's fourth-largest manufacturer of computer memory chips, is focusing on investing in NAND flash memory. For example, the firm converted its Cheongju M12 Plant that produced both DRAM and NAND flash memory chips into a NAND flash line last year in order to restructure the company whose focus was on DRAM. The chip-maker plans to mass-produce 3D V-NAND at the end of this year. Micron, which is in the third spot, recently changed its DRAM factory in Singapore

into a NAND flash plant.

Unlike its rivals, Toshiba only manufacturers NAND flash memory. Therefore, if competitors outperform the Japanese firm in the global NAND flash memory market, it will be fatal. Industry analysts are saying that Toshiba's lawsuit filed in March against SK Hynix for technology leakage despite its patent cross-licensing deal with the Korean firm was aimed at checking the Korean chip-maker's influence.

According to the findings of market research firm IHS Technology, sales of NAND flash memory worldwide is estimated at US\$25.8 billion last year, and the market continues to grow rapidly. In 2013, Samsung was the world's number one seller of computer memory chips with a 34.7 market share, followed by Toshiba (a 32.2 market share).



Three-way Fork

Leading Korean IT Companies Taking Different Semiconductor Paths

Samsung Electronics, SK, and LG Electronics are walking different paths in the semiconductor industry. The first two are making huge money from their semiconductor business, whereas LG Electronics is falling behind due to its business structure that focuses on finished goods.

According to financial service provider FnGuide's data published on May 6, Samsung Electronics reached 198.2649 trillion won (US\$193.1100 billion) in market capitalization as of May 2, while that of LG Electronics stood at 11.4389 trillion won (US\$11.1415 billion).

In as recently as 1988, LG Electronics, which was GoldStar at that time, had a market cap twice that of Samsung Electronics. The two companies were engaged in competition in good faith for a while before and after that time.

However, things began to change from 1999, when LG Electronics decided to hand over its semiconductor business unit to Hyundai Electronics, the predecessor of SK Hynix.

Since then, LG Electronics' aggregate market price has fallen to around 15 percent of Samsung's, and then to below 5 percent since 2011.

Samsung declared its concentration on DRAM in 1983 and made consistent investment in the sector to take its foremost place 10 years later. Semiconductors have been one of the cash cows of Samsung Electronics since that time. The profits have flowed into the other business units of Samsung, and the group has become the global number one in TV in 2006 and in mobile phones three years ago.

LG Electronics, in the meantime, continued its solid growth for some time even after the handover of its semiconductor business unit, thanks to its consumer electronics and mobile phones. The company sold close to 20 million units of the Chocolate Phone in 2008 alone to further accelerate its growth. However, it failed to adequately respond to the emergence of smartphones and its performance has been on a downward spiral. In short, the gap between Samsung and LG has widened due to the semiconductor business.

However, the SK Group has succeeded in what LG has failed at. The recently-acquired SK Hynix is currently spear-heading the growth of the entire group, while the other subsidiaries such as SK Telecom and SK Innovation are finding it hard to make a breakthrough.

SK Hynix recorded 1.057 trillion won (US\$1.034 billion) in operating profits in the first quarter of 2014, regaining the 1 trillion won mark in two quarters and posting an operating profit rate of as high as 28 percent. SK Telecom's profits were just 252.4 billion won (US\$246.9 million), and SK Innovation turned a deficit during the period.

In addition, SK could shed its image as a domestic enterprise by taking over Hynix. Last year, the 15 listed subsidiaries of SK recorded combined sales of 147.9055 trillion won (US\$144.6516 billion), and 51.9 percent or 76.7322 trillion won (US\$74.8139 billion) of it was derived from exports. It was in that year that the ratio of exports to total sales exceeded 50 percent for the first time since the group's inception back in 1953.

Roundabout Attack

Apple's NPE Posing Threat to Android Device Manufacturers

An argument has come out that Apple's current patent litigation against Samsung Electronics is targeting the entire Android alliance, as the United States District Court for the Northern District of California, which is deliberating on the case in question, has determined that Apple is threatening the Android group by means of its patent troll subsidiary.

According to German patent blog FOSS Patents on April 18 (local time), United States federal judge Claudia Wilken recently remarked that Rockstar Consortium, which is a subsidiary of Apple, is trying to increase the profits of its parent company by hampering the business of Google. "We have no dialogue with our shareholders with regard to our potential license partners or patent

infringement lawsuits," Rockstar Consortium CEO John Veschi said, adding, "Still, we make reports to the shareholders as to the progress and the work we are engaged in." Rockstar Consortium has filed a series of lawsuits against companies using the Android operating system such as Samsung Electronics, Google, LG Electronics, Pantech, HTC, ASUS, Huawei, and ZTE.

Back in 2011, Apple organized a consortium with Microsoft, Ericsson, Sony, and the like and purchased patents of Nortel, a Canadian telecoms equipment manufacturer, at US\$4.5 billion, to set up the non-practicing entity (NPE) RockstarBidco. The company filed patent lawsuits against Samsung Electronics, LG Electronics, HTC, Google and Huawei in November last year. It



appears that the federal judge confirmed the close link between Apple and Rockstar Consortium in view of this aspect.

"Apple currently owns the majority of the shares in Rockstar Consortium, and it is fair to say that the former has an influence on the latter," said an industry source, continuing, "It is likely that Apple is pulling strings from behind in that Rockstar Consortium has threatened Android handset manufacturers in an intensive way."

Apple is making use of its NPE in the litigation in order to dodge the risk of counterclaims. According to industry insiders, NPEs do not produce or sell products or services, and thus the risk of cross action is relatively low and more pressure can be put when an NPE leads a patent suit.

Apple vs. Samsung

Why Did Samsung Ask for Reduced Amount of Damages?



Samsung Electronics has lowered the total amount of its damage claim after filing a counter-suit against Apple for patent violations.

Samsung announced on April 22 (local time) that it withdrew its patent claim on Apple's iPad in the current patent infringement case against Apple in the Northern District of California. The aggregate amount of the Korean tech giant's damage claim has therefore decreased from US\$6.94 million (7.2 billion won) to US\$6.23 million (6.46 billion won).

Previously, the largest Android phone maker demanded US\$6.78 mil-

lion, claiming that Apple's FaceTime feature infringes on its video call patent. The amount was then lowered to US\$6.07 million. However, the Korean firm's US\$158,400 patent claim related to the management of cameras and file folders remains the same.

In response, Apple has decided to let expert witnesses testify that it did not infringe on the patents of its rival company. When a second patent infringement lawsuit started early in April, the US tech firm demanded that Samsung pay US\$2.19 billion (2.27 trillion won) for the alleged infringements by the Korean company.

The videotaped testimony of Google patent attorney James Maccoun that describes terms of the search engine company's "Mobile Application Distribution Agreement" with Samsung and

e-mail discussions was played for jurors on April 22.

Under the agreement, the world's largest smartphone vendor is required to install Google's applications in Samsung phones, and the Internet giant is also obligated to defend and indemnify the Korean firm against claims pertaining to Samsung's use of technology for Google's Android operating system. According to e-mail discussions, the search engine giant may need to pay some of costs in the case. In the event that Samsung loses the case, Google may have to shoulder some of Samsung's burden in damages.

In general, these kinds of defense and indemnity clauses are concluded in the software license agreement.

The jury is expected to deliberate the case after witness examinations on April 22 and 25, and closing arguments are finalized on April 28. Hence, the jury is likely to reach a verdict in the final week of April.

Two-track Strategy

Samsung Electronics Expected to Adopt Two-track Strategy in Wearable Device Market



Keen attention is paid to wearable device manufacturers' business strategies with new products coming out regularly. Samsung Electronics is maintaining a closed strategy, that is, to connect its wearable devices like the Galaxy Gear 2 only with its hardware products. Meanwhile, other companies such as LG Electronics, Motorola, and Sony have adopted an open strategy so that their devices can be connected to a wide range of other devices and platforms.

Apple and Samsung Electronics are two of the typical examples of those employing the closed strategy. The latter has recently announced that its Galaxy Gear 2, Galaxy Gear 2 Neo and Galaxy Gear Fit can be linked only to the Galaxy-series smart phones and tablet PCs. The previous model o the Galaxy Gear connected only with the Galaxy Note 3.

Apple, which has yet to release its first wearable device, is maintaining the same strategy via cooperation with third-party manufacturers. For instance, Nike has recently unveiled its Fuel Band SE, which supports only iOS, and Misfit Shine has released its application only on the Apple App Store. The iWatch, scheduled to be unveiled in September, is likely to be available only for iOS users.

"Companies with a high market share in the mobile market want to continue their presence in the wearable device market as well, and this is why they work on devices connected only to their products," said an industry source, adding, "It seems



SAMSUNG

that Samsung Electronics, which has worked very closely with Google in the smart phone sector, has adopted the closed strategy so as to become a dominant force on its own in the wearable device industry."

In the meantime, watchers say it is hard to believe that Samsung Electronics uses the open-source Tizen OS in its Samsung Gear 2 while limiting the devices' connection to only the Galaxy series of products. Tizen OS is a platform developed not by Samsung alone but by the 10 members of the Tizen Alliance including Intel, Huawei, KT, NTT Docomo, and Orange. The number of partner firms associated with the group amounts to 51, including manufacturers like ZTE. Nonetheless, the first wearable device of the group is likely to be a closed-platform product using the Samsung brand.

Some industry experts are predicting, though, that Samsung's strategy is unlikely to work out with Google moving aggressively to dominate even the wearable equipment market with a variety of manufacturers. The search giant has unveiled its Android Wear and releases LG Electronics' and Motorola's smart watches in June this year. Devices based on the Android Wear can be connected to all smartphones and tablet PCs running Android OS.

Under the circumstances, Samsung Electronics is also expected to launch Android Wear smart watches in a two-track strategy so as to reduce the risk of the closed strategy.

New Regulations

Unbridled Days Could Be Over for Portal Sites

NAVER

The government is looking into methodologies to evaluate the status of market competition among large portal companies like it does to mainstay telecommunication companies.

A Ministry of Science, ICT, and Future Planning associate said on April 29 that, "Last year's studies show that portal research markets can be categorized as an independent market. This year, we are planning to iron out specific methodologies such as how to categorize the market and how to define market dominant businesses."

In this regards, the Ministry called for cooperation by summoning major portal companies such as Naver, Daum, and SK Communications in the afternoon of the same day.

The current Telecommunications Business Act requires an annual status evaluation on competition in mainstay telecommunication businesses (wire telephone, mobile communication, and high-speed Internet). Based on the result, a company with more than 50 percent market share is designated as a "market dominant business," and subjected to regulation.

However, the law does not include additional telecommunication businesses such as search portals, online games, or e-commerce sites, so they are not subject to evaluation.

Therefore, Naver, with its almost 80 percent market share in the portal site market, is not currently under special regulations since it does not now qualify as a mainstay telecommunications businesses.

Last year, the government conducted studies on whether or not additional telecommunication businesses should be included so as to be under governmental regulation. The organization in charge, the Korea Information Society Development Institute (KISDI), published a report at the beginning of last year called "2013 Telecommunication Market Competition Status Assessment" that says, "Since Internet portal and search markets serve as a gateway in the Internet ecosystem, it is essential to conduct a study that delves into their relevant market demarcation."

The statement can be interpreted as a tentative conclusion that among additional telecommunication businesses, portal search markets need to be subject to market status evaluations, and thus can be regulated if deemed necessary.

The ministry associate explained, "Compared to other additional telecommunication businesses such as games and e-com-



merce, portal search businesses have larger sales and a greater impact on the general public as well as on other industries."

However, as of now, no legal grounds can justify the evaluation of portal companies and other additional telecommunication companies, so it is yet to be determined whether or not specific evaluation will be actually carried out.

Presently, a revision to the Telecommunications Business Act that was proposed in the National Assembly is still pending. It will enable competition assessment of additional telecommunication companies so as to be treated like mainstay telecommunication companies.

The ministry is planning to hammer out concrete methodologies so that it can embark on its probe once the law gets the green light.

A ministry associate said, "As soon as the legal ground is paved, we will assess portal companies, but we are lacking in data since we have never evaluated portal companies before. We will ask for cooperation from portal companies themselves to secure basic data and then later will map out evaluation methods."

In the meantime, according to the portal companies, they raised issues at the meeting such as KISDI's research methods last year and the exclusion of overseas businesses such as Google in the ministry's scope of market competitiveness status analysis.



Potential Threat to Samsung

Chinese AMOLED Panels to Pour into the Market

Chinese companies are actively seeking to enter the AMO-LED market. Although they are not technologically advanced yet, they are expected to target the mid-range and low-cost smartphone markets based on their price competitiveness. Thus, much attention is being paid to how Korean firms such as Samsung Electronics will respond.

According to the Export-Import Bank of Korea and news outlets in China on April 30, several Chinese firms have recently decided to mass produce AMOLED panels. To date, the AMOLED panel market is dominated by Samsung with more than 90 percent share. However, as Chinese manufacturers are increasing their market share with mid to low-end smartphones, the Chinese display industry is likely to grow as well.

Shanghai-based EverDisplay Optronics produced prototypes of 5.5 inch and 6 inch AMOLED panels of a 4.5-gen line last year, and is scheduled to mass produce 15,000 units a month later this year. Chinese panel producers BOE Display and Visionox are also considering building a production line for AMOLED panels smaller than 10 inches and supplying those small displays in the future.

Industry analysts in China are saying that although there is still a gap between local panel makers and Samsung Display in manufacturing output and quality, Chinese firms are more likely to have a competitive advantage in price over Sam-

sung. Moreover, if Chinese mobile phone makers supply a large number of entry-level and mid-range smartphones, the economy of scale will be realized, and the unit price of those phones is predicted to be further lowered.

Visionox says that it is building a production line by hiring experts from various countries including Korea, the US, and Taiwan, and thus there are no problems with the mass production and quality of their products.

However, news organizations in China caution that if the low and mid-range areas of the smartphone market are not expanded, current facilities could become over-invested. In addition, cooperation with related enterprises is said to be necessary to expand the market, since the market is still in its early stages.

In the meantime, research firm Strategy Analytics reported on April 30 that Samsung made up 31.2 percent of the global smartphone market in the first quarter of this year, a 1.2 percent year-on-year drop. Apple's market share also decreased 2.2 percent year-on-year to reach 15.3 percent in Q1. On the other hand, Chinese Android device manufacturer Huawei accounted for 4.7 percent of the market, maintaining a similar level from a year ago. Like Huawei, Lenovo became the third-largest smartphone manufacturer with a global market share of 4.7 percent, a year-on-year increase of 0.5 percent.



Declining Fortunes

STX Offshore and Shipbuilding about to Kick the Bucket

Formerly ranked 13th in the local economy as a giant in shipping and shipbuilding, STX Offshore and Shipping Co. may forever disappear into the sunset.

While other shipbuilding companies are zeroing in on landing orders on the back of the shipbuilding industry's rebound, STX's Jinhae and Busan shipyards are facing restructuring and shutdown, respectively.

Its overseas affiliates such as STX Dalian, STX France, and STX Finland are struggling with little or no orders, so they are out for sale or the shipyards are being emptied out.

According to the industry on April 29, STX's local shipyard Jinhae and Busan Shipyards are seeing a big cutdown in the payroll this year, and their workload is significantly reduced as the finished ships have been delivered already.

On top of this, workers are flocking out the mill as the company's employees' and affiliate's employees' back wages are mounting.

It has been known that some STX shipyards inevitably have to close down such as Busan STX, which is slated to shut down in June.

An associate well versed in the company says, "Busan STX virtually will have no workload once two Dongwon Industries' ships and one LPG ship are constructed by July. I know as a fact that Busan STX will close down as of the end of June."

The story is not too different for Jinhae Shipyard. According to Clarkson Research that specializes in international shipping and shipbuilding market status analysis, STX's Jinhae shipyard's backlog orders stood at 80 at the end of last year, a

drop of 45 ships from 2012 year-on-year.

This year, the first quarter's backlog orders halved from last year, since it fell from 110 to 62 year-on-year.

Individual shipyards face dismal figures too. Out of STX's seven shipyards, Jinhae has a backlog order of 62, Busan has 6, China's Dalian has 54, and France and Finland have 2.

One industry associate put it, "At this rate, all shipyards will be completely emptied out for a dearth of orders. Even in Gyeongsangnamdo, the birthplace of STX Shipbuilding, the name is fading away."

Last year, STX Offshore and Shipping Co. recording sales of 3.35 trillion won (US\$3.25 billion), but suffered from red figures such as an operating loss of 2.36 trillion won (US\$2.3 billion) and a net term loss of 4.7 trillion won (US\$4.6 billion).

Their sales saw a 46 percent drop year-on-year, while the operating loss surged 238 percent. The term net loss expanded 420 percent year-on-year, and with -2,105 percent as their gross capital/capital ratio, the company completely ate into its capital.

The company stayed at the big number four spot in global shipbuilding just up to a few years ago, together with local companies such as Hyundai Heavy Industries, DSME, and Samsung Heavy Industries, but last year it was ousted from the top 10 list.

After the first quarter this year, it was beaten by Chinese shipyards.

As if to put salt in the wound, the company may be forced to file for court receivership for its Chinese Dalian shipyard.

Extended Range

Electric Cars Will Soon Take You Farther



The batteries are the most important part of new electric cars.

A local research team has developed a secondary cell that can be used to let electric cars run as long as 300 kilometers on a single charge.

Dong-A University chemical engineering professor Lee Jung-kyu revealed on May 7 that his research team developed a next-generation high-capacity lithium secondary cell with a greatly-enhanced lifespan and high energy density by using silicon materials.

The research team developed a lithium secondary cell that can be charged thousands of times by combining their own silicon-based negative pole material and a high-capacity positive pole material developed by a Hanyang University research team led by energy engineering professor Seon Yang-kuk.

The cell had a greater energy density of 240-270Wh/kg after the team grafted on new negative and positive pole materials.

The research team explained that once the cell is used in an electric car, the car can run as far as 300 km on one charge, indicating almost a 2x performance upgrade vis-a-vis current commercial lithium secondary cells with an energy density of 150Wh/kg and running distance charge of 160 km.

The team overcame the silicon material's short lifespan by diffusing a small quantity of grapheme inside the silicon, carbon, and nano complex.

Professor Lee Jung-kyu said, "We confirmed the commercial viability of next-generation high-capacity lithium secondary cells that are based on silicon materials. We will spearhead our research

that will optimize and simplify the manufacturing process for mass production of silicon materials."

The outcome of the research was published in Advanced Functional Materials, an international academic journal in the fields of chemistry and materials.

Molybdenum Disulfide

Ultra-thin Semiconductor Material on the Horizon



A 15mm euhedral, hexagonal molybdenite crystal on quartz, from Molly Hill mine, Quebec, Canada. Molybdenite is processed to make molybdenum disulfide (structure inset).

Alocal research team succeeded in developing an ultra-thin electronic element using molybdenum disulfide, expediting the development of next-generation ultra-thin semiconductor materials.

Seoul National University Physical Astronomy Professor Lee Tak-hee said on May 7 that he, together with Pohang Accelerator Research Institute PhD Baek Jae-yun and Pohang University of Science and Technology Professor Shin Hyun-joon, developed an extremely thin electronic element using semiconductor trait-bearing molybdenum disulfide.

Molybdenum disulfide (MoS2) is extremely thin and is also a semiconductor. The research was published in the international academic journal ACS Nano's online version on April 14.

The electronic element that was developed this time can sustain its semiconductor traits and can be manufactured in a high density. Also its production can skip the post-processing step that shaves off materials that grow broadly on the surface.

The core achievement is that MoS2

can be distributed in any place and with any shape, making it possible to massproduce all of the electronic elements at once. @

Reflective Display Tech

KAIST Develops Advanced Reflective Displays



Pixelated inverse opals with red, green, and blue colors were prepared by hybridizing convective assembly of colloidal particles and photolithography techniques. This hybridized method provides a general means to create multi-colored photonic crystals.

The Korea Advanced Institute of Science and Technology (KAIST) announced on May 7 that its research team formerly led by the late biomolecular engineering professor Yang Seungman developed a photolithographybased micro-patterning technique which can accelerate the commercialization of photonic crystals.

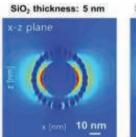
The photonic crystal pattern developed at this time is a key material for next-generation reflective displays and allows images to be viewed clearly even under sunlight. It uses no additional light sources at all, and thus can be used for days after one full charge.

"When semiconductor processing techniques are combined with this photonic crystal patterning technique, an earlier-than-expected commercialization of photonic crystals will be ensured," said KAIST biomolecular engineering professor Kim Shin-hyeon, co-author of the research. He continued, "Then, it will be used as a core optical material constituting advanced reflective color display devices with extremely low power consumption."

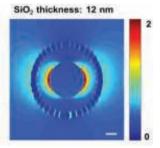
The research results were published in the April 16 edition of Advanced Materials, a renowned scientific journal covering materials science.

New Fluorescence Tech

Korean Research Team Develops Tech to Quadruple Efficiency of Fluorescent Substances







Normalized electric field intensity distribution calculated by the FDTD analysis of Au@SiO2@CdSe as the silica layer thickness increases.

Aresearch team led by Kim Dongha, Associate Professor of Chemistry and Nano Science at Ewha Womans University and Dr. Saji Thomas Kochuveedu announced on May 6 that they successfully developed a method to create a nanostructure that greatly enhances

the light emission efficiency of fluorescent substances using the phenomenon of surface plasmon resonance (SPR) that is shown when light interacts with gold nanoparticles.

SPR is the collective oscillation of electrons in a metal surface. The team

created a core-shell nanostructure composed of gold nanoparticles, surrounding CdSe quantum dot donors, and S101 dye acceptors. After making two layers of silica between the core and shell, they were successful in controlling the space among gold nanoparticles and the distance between donors and acceptors with great precision by adjusting the thickness of these layers.

The team was able to improve the light emission efficiency of fluorescent substances as much as four times by increasing the efficiency of Förster Resonance Energy Transfer.

Professor Kim noted, "I think that this technology could be widely used in displays, biochemical sensors, and solar cells where fluorescent substances are utilized."

The research findings were first published online on April 22 by Scientific Reports, an online open access scientific journal published by the Nature Publishing Group. ®

Hyperfine Circuits

Korean Research Team Develops Tech to Make 5nm Scale Circuit Patterns

A Korean research team successfully developed a method to make a hyperfine circuit pattern for semiconductors smaller than 10nm after solving the problem of going smaller. Previously, creating patterns at 10nm was considered to be a physical limitation. The new technology is expected to drastically increase the number of transistors, memory chips, and displays that can fit in a given space.

The Institute for Basic Science (IBS) announced on April 30 that a research team led by Kim Sang-woo, professor of the Korea Advanced Institute of Science and Technology, and Kwon Se-hoon, professor of Pusan National University, succeeded in developing a new technique to manufacture 5-nanometer-class circuit patterns for next-gen semiconductors by controlling chemical reac-

tions of atomic units with great preci-

Currently, optical lithography uses photosensitive materials and laser beams to transfer a circuit pattern to a semiconductor. The problem is that it is impossible to make a pattern finer than 10 nanometers with this technique, owing to physical limits.

Block copolymers have been receiving a lot of attention as materials that can quickly make nanoscale patterns in a larger area. However, controlling the distance between fringe patterns has been hard. Creating patterns with appropriate thickness has also been difficult.

The team made a pattern by aligning 14nm rectangular-shaped lines and spacing them 10-14 nm apart using the self-assembling property of block copolymers. Then, they coated the pattern in



Circuits are printed onto silicon wafers like these and used as the basis for all of computing today.

an aluminum oxide with a thickness of 5 nm, which was controlled to the atomic unit. Finally, after removing the polymers using plasma under airtight conditions and leaving the aluminum oxide layer, the team was able to get a 5 nm semiconductor circuit pattern out of the remaining aluminum oxide layer that had been left behind. They also verified that the pattern was successfully copied to the substrate by utilizing the pattern as a mask.

This study was funded by Korea's Ministry of Science, ICT and Future Planning, and the research findings were first published online on April 6 by Advanced Functional Materials, a bimonthly scientific journal published by Wiley-VCH.

Wearable Computing

Foldable Memory Device on the Horizon



This wearable device developed by scientists at MIT, in connection with an augmented book, attempts to convey the emotions experienced by the protagonist in the book in a visceral way to the

Adata storage device is expected to soon roll out that can be folded like paper and can be attached to wearable devices

Yonsei University faculty member Park Chul-min and Lee Hyung-suk announced on April 21 that, in conjunction with Japanese and French research teams, they developed a next-generation foldable, non-flammable organic memory element by maximizing the resistance against element flexibility and deformation.

This new element can be easily produced by a simple liquifying process, and is expected to be used widely for display, communication and storage devices for wearable computers due to its foldability.

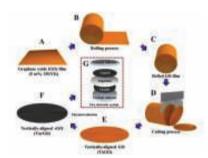
According to developers' explanations, the element can keep its stability even after being folded 1,000 times.

Professor Park says, "Products like wearable displays will require memory devices, but it will be hard to put in hard devices like a USB. We expect that wearable memory devices will be commercialized in five years."

Bendable memory devices have been developed several times before, but they only bent a few millimeters, which makes it hard to be used in next-gen wearable electronics elements that are exposed to a variety of environments. The research this time was sponsored by the Scientific Research Center Business spearheaded by the Ministry of Science, ICT, and Future Planning and the National Research Foundation of Korea. The outcome of the research was published as a noteworthy thesis in the international academic journal "Nature Communications" on April 8.

Supercapacitor Tech

Electric Vehicles to be Charged 1,000 Times Faster



A diagram that explains how to make a vertically-aligned electrode film with graphene oxide flakes.

A Korean research team has developed a supercapacitor technology that can charge devices 1000 times faster. Thus, a new graphene supercapacitor is likely to be used in electric cars and other electronic devices as next-gen energy storage equipment.

A research team led by Professor Lee Hyo-young at Sungkyunkwan University and Dr. Yoon Yeo-heung announced on April 16 that they successfully developed a high-performance supercapacitor technology that can drastically increase a charging and discharging speed by vertically aligning graphene oxide flakes.

Supercapacitors are next-gen energy storage equipment, following secondary cells. Due to higher electric outputs than lithium-ion batteries, they are appropriate for electronic equipment that needs a large output of power, such as electric

vehicles and wind generators. They generate electricity by absorbing and releasing electrolytes (charging and discharging) from a conductive electrode material. Therefore, the more electrolytes are absorbed into electrodes, the more electricity can flow.

After making a graphene oxide film using a carbon nanotube, the team made a vertically-structured graphene electrode with high conductivity and density through a cutting and heat treatment. To charge and discharge electricity faster, they also inserted the carbon nanotube into graphene oxide sheets and created pores in a regular pattern between sheets.

As a result, the electrode was able to charge and discharge electricity 1,000 times faster than solid and vertically-structured graphene used in existing supercapacitors. It can also store energy three times more, and the density of the electrode is as twice as high as conventional activated carbon or graphene.

Professor Lee said, "This technology is expected to be used in small energy storage units, electronic devices, electric vehicles, and next-gen energy storage equipment that requires fast charging."

The research findings were first published online on April 2 by ACS Nano, a monthly scientific journal published by the American Chemical Society.

Pearls in Mud

Clean Fuel to Be Produced from Landfill Gas

The Korea Research Institute of Chemical Technology announced on April 16 that its resource separation and recovery research team led by Dr. Kim Jeong-hoon developed a hybrid purification technology for membrane separation with which the methane gas given off by landfills can be purified to the point of being usable as a vehicle fuel.

Landfill gas is characterized by its



Dr. Kim Jeong-hoon of the Korea Research Institute of Chemical Technology studies the purification of biogas utilizing a membrane module.

high content of nitrogen and low concentration of methane. As such, even developed countries have failed at highpurity refinement, and used it mainly in post-combustion generation, which is rarely economical.

The research team developed a new purification technology in order to apply it to the low-grade gas mixed with impurities such as carbon dioxide, nitrogen, oxygen, siloxane, hydrogen sulfide, and moisture. With the technique, impurities can be selectively removed from the gas so the resultant material can be employed in CNG vehicle fuel at a methane purity of at least 95 percent (caloric value of 9,000 kcal/m3) and a recovery rate of up to 88 percent.

The purity and recovery rate can be increased when the technique is applied to the methane gas generated from livestock wastewater, food garbage and sewage sludge containing high-concentration methane without nitrogen. In this case, the methane purity and recovery rate can exceed 95 percent and 90 percent each using the separation membrane process alone. The purified material can be used in city gas or vehicle fuel. It will also reduce the greenhouse gas emissions from methane. At present, methane has a global warming index of 21, second on the list.

"The new technique has a lot of advantages over existing absorption and adsorption methods, for example, less expensive plant facility costs, simpler operation and higher eco-friendliness with no wastewater generated," said the head of the research team, adding, "We are expecting that it will be able to increase its presence in the field of methane gas purification."

Wireless Power Transmission

Korean Research Team Develops New Method to Wirelessly Charge 40 Smartphones Simultaneously



Anew method to wirelessly transfer power was developed by a Korean research team.

The Korea Advanced Institute of Science and Technology (KAIST) announced on April 17 that a research team headed by Rim Chun-taek, Associate Professor at the Department of Nuclear & Quantum Engineering of KAIST, succeeded in wirelessly transmitting 209W from 5m away. That amount of electricity can charge 40 smartphones at the same time, operate five electric fans, or run a large LED TV.

A technique to wirelessly charge small electronic devices such as electric shavers or smartphones at a very short distance has already been commercialized, but it is the first time to successfully transfer power from a distance of 5m. In 2007, a research team at MIT successfully transferred 60W up to 2.1m with a coupled magnetic resonance system (CMRS). However, the method was not able to be commercialized after its development since the structure of the coils was complicated and bulky. On top of that, the technique was not efficient, because it only operated above 10MHz.

The Korean research team was able to overcome the shortcomings of existing wireless power transmission tech with a dipole coil resonance system (DCRS). The team decreased the number of transmission and reception coils to only two, or a dipole structure. They also reduced the size of coils using ferrite cores. Thanks to low-frequency

variation, the new technique is 20 times less affected by a change in the surrounding environment than conventional technologies. The newly-developed method is easy to be commercialized as well, as it can operate at 100KHz.

Previously, the team successfully transferred 10W from a distance of 7m after using the tech for the development of an emergency power source for a measuring instrument of a containment building, in partnership with Korea Hydro & Nuclear Power. At the time of the Fukushima nuclear accident, power supply to a measuring instrument was lost, and thus it was not possible to assess the damage, which worsened the situation. In that case, a wireless power transfer method could have been utilized.

Professor Rim explained, "The new technique can transmit power more than twice as far and three times as much as traditional methods. So, it contributed to the earlier commercialization of the long-distance wireless power transmission technology." He added, "The method is less efficient than using electrical cords. However, our team is intensifying efforts to develop a technique that can enable people to wirelessly use electronic devices without chargers when they approach a specific area like a Wi-Fi zone." The professor concluded by saying, "I think that the new tech can be used in nuclear power plants in the nation once it passes tests by KEPCO Engineering & Construction Company."

The research findings were first published online in March in The Institute of Electrical and Electronics Engineers (IEEE) Transactions on Power Electronics published by the Institute of Electrical and Electronics Engineers, Inc. @



Korea MICE Expo 2014

New Paradigm of MICE Industry Starts in Korea

The grand opening of the Korea MICE Expo on June 19 is attracting buyers from all over the world.

There is a new kind of global war brewing over the high-value-added MICE industry for its initial market dominance. Amid the global economic slowdown, the industry is touted as a goldmine, as it creates new jobs and added value while boosting the nation's trade balance.

On the back of booming global business, MICE has emerged as a next-gen tourism industry that combines corporate meetings, incentives, conventions, events, and exhibitions. In fact, "Meetings, incentives, conferences, and exhibitions" is what MICE stands for.

In this light, the local government announced during the "Tourism Promotion Conference" in February that it will nurture the MICE industry as its flagship industry by building complex resorts. A complex resort is the MICE industry's core installation that includes conventions, performances, accommodations, shopping, and restaurants, serving multiple functions such as business, leisure, and entertainment.

International meetings such as conventions are large scaled, with many attendees. They incorporate tours in addition to

business, and therefore, MICE is dubbed as a smokestack-free, golden-egg-laying industry.

These international meetings have emerged as the local tourism industry's blue ocean together with other competitive industries including Hallyu (Korean Wave), medical, and IT.

In 2012, Korea saw phenomenal growth in MICE by ranking 5th globally in hosting international meetings, as it served as a venue for 563 conventions that year. It is the fruit of the government's unsparing efforts in hosting corporate meetings and exhibitions after its decision in 2006 to make MICE the new growth drive.

As Chinese companies' incentive tourism is getting up to speed, Korea is in hot pursuit of Singapore, the global number one MICE nation. Moreover, together with Hallyu, medical tourism with an astounding 37.3 percent annual growth rate is playing a pivotal role in the local MICE industry.

The Korea Tourism Organization (KTO) anticipates that attracting 1 million medical tourists will generate 9.4 trillion won (US\$9.2 billion) in additional production, and 17,000 jobs. The estimates are based on the assumption that on the back of the newly-created medical tourism hotel industry act, it will be possible to develop and operate medi-tels (medical hotels) from March 2015.

Likewise, in hosting industry specialized exhibitions and international meetings, Korea has a major advantage over other countries as it is a global IT leader. Global giants such as Facebook, Google, and China's emerging Tencent, Baidu, and Alibaba keep close tabs on the Korean market to fast react to its market trends, which proves that the local economy is grabbing attention from global IT companies.

Despite its short history starting in 2000, the Korean MICE industry showed remarkable growth via strategic and focused

nurturing.

Now, the local MICE industry is facing a new phase with this year as a milestone, allowing foreign capital investment and building complex resorts, and is anticipated to rise even further through infrastructure expansion and upgrading and brand awareness enhancement.

Korea MICE Expo: Leap to Global MICE Specialized Exhibitions

The Korea MICE Expo is to be held in KINTEX, the largest local convention center in Gyeonggi-do, from June 19-20.

The MICE Expo, first started in 2000, found a venue at Seoul COEX for four years, to 2010.

However, from this year, in a bid to boost the regional MICE industry, it is to be held for two years in Gyeonggi Province, co-hosted by the KTO and Gyeonggi Tourism Organization (GTO) and sponsored by the Ministry of Culture, Sports,

and Tourism (MCST), Gyeonggi Province, Goyang City and Kintex.

This 15th expo will be attended by some 200 MICE-related companies and some 350 buyers from inside and outside the country, and will offer colorful events such as business meetings for buyers, presentation sessions, an international convention association data workshop, Korea MICE association workshop, and foreign VIP tours.

KTO incentive & exhibition leader Seo Bong-sik said, "The KTO is planning to transform the MICE Expo into a world-class MICE-specialized expo such as Europe Incentive Business Travel & Meetings (EIBTM), via exploring and expanding overseas buyers and MICE participating companies for the next five years. We are set to use this festive opportunity in a way that our MICE industry can leap into becoming a high-value-added industry by fusing it together with other competitive industries such as medical, Hallyu, and IT.

2014 Korea MICE Expo Programs

MICE exhibitions and business consultations

- An increase of 30 percent in overseas buyers is expected
- The expo is in transition to becoming a global event, since 70-80 percent of the buyers this time are expected to come from Europe, America, and Southeast Asia, while up to last year, most of them were from China

MICE presentation sessions

- They are briefing sessions for overseas and local buyers
- The sessions are to be run by regional Convention and Visitors Bureaus (CVBs) and cities, to brief on city promotion and marketing
- It will feature public organizations such as the KTO's presentations on their event hosting cases to be followed by question and answer sessions

K-MICE forum

- It consists of three sessions, which are: co-session by KTO, GTO and International Congress and Convention Association (ICCA), MICE startup session, and American Society of Association Executives (ASAE) educational session
- The ICCA's session keynote speaker will be James Reese, an ICCA board member, and he will give a presentation on hosting the London Olympics
- The MICE startup session will feature several speakers, including AIM Korea CEO Kim Mi-ah
- The ASAE session will carry out Day 1 portion of the course on the specialist education program for association, organization, and company leaders

College Student MICE Idea Contest

- The purpose is to encourage interest in the MICE industry among college students including MICE majors and nonmajors under the theme of "Development of tourism sites focusing on 'unique venues' around the nation"
- The prizes to be offered include the grand prize, runner up, second runner up, and etc.

Pre/post tours for buyers

- Targeting invited buyers, tours will be offered before and after the main events
- The tours will mostly consist of regional tour sites, to stimulate regional tourism
- Pre-tours will cover Gyeonggi Province while the post tours will feature Seoul, Gangwon Province, Gyeongju, Busan, Jeonju, Yeosu, and other places

Other programs to be featured

- Global event organizer Reed Exhibitions will offer an educational session to participating companies
- Some 70 booths will offer various services such as food (temple food and Korean traditional food), oriental and western medical services, and Hallyu experience zones





Medical Korea 2014

KOREA GOES "MEDICALLY" GLOBAL

Do you want to experience the latest trend in medical tourism industry and learn outstanding healthcare strategies? If so, Medical Korea 2014 is the place to go.

Medical Korea, the landmark global healthcare & medical tourism conference of Korea on its fifth year, has now secured its position as the largest platform for information exchange on healthcare and medical tourism in Asia.

Under this year's slogan, "power to lead bio & healthy industry for creative economy," it will be held in KIN-TEX Exhibition Center II for three days, from May 28 to 30. It is being hosted by the Ministry of Health and Welfare and organized by Korea Health Industry Development Institute (KHIDI). For this year, this event was specially sponsored by Korea Tourism Organization (KTO) and Korea International Medical Association (KIMA).

KHIDI, a government affiliated institution providing professional and systematic support to develop domestic health industry and enhance health service, was established in 1999. Since then, it has led expansion of healthcare R&D investment and building competitiveness of Korea's healthcare industry such as health services, pharmaceuticals, medical devices, food and beauty-cosmetic. With the rapid growth of global healthcare sector, such as attracting foreign patients and exporting healthcare

service providers along with healthcare system, it took more initiative in increasing competitiveness in health industry to get the "global attention."

More than 500 participants from 20 countries and about 60 exhibitors from the healthcare and medical tourism organization are expected to attend this globally-known event.

This exhibition will feature five major sections, of which will be conference on discussing the latest trends in medical tourism and health care system export, business meetings to stimulate network among persons related to global healthcare industry, exhibition of 60 different healthcare and medical tourism organizations, special sessions in Daegu, known as the medical tourism hub, and will end with an award ceremony along with charity dinner to award the outstanding Korean healthcare and medical tourism organizations and share stories about excellent medical technology and

services around the world.

Jung Keetaig president of the KHIDI said, "Now, the whole world has turned its attention to the new growth engines



Jung Kee-taig, president of the KHID.

of global healthcare and medical tourism. Economies can be developed significantly through cooperation with the fields such as pharmaceuticals, medical devices, and cosmetics."

He also said, "Aiming to achieve patient safety, top-quality medical services, and strategic solutions not only domestically but also globally, we are creating patient-friendly environments for overseas patients visiting Korea while at the same time helping them to benefit from our advanced medical technology."

Title	Medical Korea 2014 – The 5th Global Healthcare & Medical Tourism Conference		
Date	May 28 (Wed) ~ 30 (Fri), 2014 – 3 days		
Venue	Exhibtion Center II, KINTEX		
Hosted by	Ministry of Health and Welfare		
Organized by	Korea Health Industry Development Institute (KHIDI)		
Special Sponsor	Korea Tourism Organization (KTO) Korea International Medical Association (KIMA)		
Website	www.medical-korea.org		





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Internet Usage Revolution

Apps Ascending in the House of Mobile



The Internet business paradigm is fast changing in light of a rapid shift in the Internet's user environment.

As people use PCs less often to access the Internet and mobile devices more, they are also beginning to spend more time on particular apps rather than the web. The Internet business environment is therefore in transition.

According to the Korea Internet and Security Agency's research report "2013 Internet usage status" on April 20, the PC-based Internet access rate went down from 82.1 percent in 2012 to 79.8 percent in 2013, while mobile usage grew from 58.3 percent to 91 percent, a whopping 30 percent rise in the same period.

While the PC once dominated the Internet, now mobile devices such as smartphones are key players. But especially with mobile devices, more time is spent with apps rather than the web.

According to a recent report published by mobile research company Flurry, even in 2013 users spent 80 percent of their mobile time on apps and 20 percent on the web. However, in the first quarter of this year, app usage time grew to 86 percent, while web usage time fell to 14 percent.

A Flurry associate stressed the importance of changing the Internet business environment from web to apps by saying, "While on the Internet, users predominantly use smartphones, but even smartphone users tend to prefer closed apps to open web surfing."

To capitalize on the trend, Internet companies are also modifying their business strategies from web to app.

Facebook CEO Mark Zuckerberg, in emphasizing the business direction that application businesses should take on, was quoted as saying in a recent New York Times interview, "Apps that focus on one function such as messengers or news feeders are more popular in mobile."

In fact, the app industry is touted as a market that can gar-

ner tremendous profits, according to some. One app developing associate said, "Once one dominates a platform like Google, Apple, Kakao, and Tencent, they can gain strong control over apps." This is because unlike on the web, where users can freely roam around, a closed app can trap users so that they stay longer. He said, "Because of this, monetizing for mobile can be more viable than it is for web."

The first phenomenon that accompanied the onset of appbased business environment is that more and more free apps are being offered. According to Flurry, free apps that accounted for 84 percent of the total in 2012 went up to 90 percent in 2013, meaning that the majority of the apps are free.

Even Microsoft, notorious for being averse to the idea of "free," joined in. Microsoft's flagship software suite Office offers free document viewing and editing on mobile devices. It costs tens to hundreds of thousands of won (US\$30-400) to use the same functions in PC-based Office.

Deciding the app to be free or non-free turns out to be a make or break factor for a company's growth. NCSOFT is tasting the bitter taste of failure by sticking to a paid mobile model for its popular game Lineage. The game, launched in 1998, is a signature "paid" case of PC-Internet business.

On the back of Lineage's success, the company on March 26, rolled out "Lineage Mobile: Haste", in link with its PC game Lineage. However, Lineage Haste has long been ousted from the Google Play top 100 game ranks.

In contrast, Netmarble, after struggling in the PC-Internet game market, succeeded in a comeback by offering it free in the mobile app market. Netmarble's Monstergame and a few other titles made the top 10 on Google Play games. The game company took the lead in the mobile game market with sales of 500 billion won (US\$482 million) in 2013, just one year after posting a dismal 210 billion won (US\$202 million) in sales in 2012.

K-Pop Alliance

K-Pop to Resound throughout China

SM Entertainment inked a strategic Memorandum of Understanding (MOU) with China's number one portal company Baidu, to collaborate in areas such as digital music service distribution and broadcasting program production, securing a springboard to expand into the Chinese market.

SM Entertainment Chair Lee Soo-man and Baidu Chair Robin Li agreed, on May 8 at Baidu Headquarters in Beijing, China, on joint business operations ranging from online distribution in China of SM-owned music sources and music videos, joint running of SM artists and K POP online communities, to



Girls' Generation belongs to SM Entertainment, which recently signed an MOU to penetrate the

new broadcasting program production.

Under the MOU, Baidu is to invest a large marketing budget in the SM music source service.

SM's source relayed that the MOU this time was initially proposed by Chair Li, who attended and watched "SMTOWN LIVE WORLD TOUR III in BEIJING" in October last year.

Face Certificates

Too Much Surgery Confuses Immigration Officials

As more and more foreigners go under the knife for plastic surgery in Korea, Korean hospitals have started to issue certificates to verify faces.

Foreigners come to Korea in throngs to get plastic surgery, since it is a well-known plastic surgery hot spot.

However, Korea's reputation has also helped to spawn a string of funny incidents at its airports.

England's Daily Mail reported on April 22 (local time) that, "Some hospitals in South Korea are now offering plastic surgery certificates to smooth patients' paths through passport control when they no longer look like their passport photos."

The newspaper went on to say, "People normally expect to see changed faces and looks, but in some cases, they look so different that they are hardly recognizable. This happens more often than not, since Korean plastic surgeons are so good."

The news went on to say, "Some foreigners who underwent surgery look so different that they cannot pass through passport control. Some Korean plastic surgery hospitals help these foreigners pass through passport control by issuing plastic surgery certificates. The certificates include the patient's passport number, hospital name, and the period of stay in Korea."



Before and After pictures of plastic surgery performed in Korea.

According to the newspaper, for the last few years, more and more foreigners could not pass airport passport control. In 2009, 23 Chinese people, after the surgery makeover, had a hard time going back to China. They had the problem because after the surgery they had larger eyes, higher noses, and slimmer chins. One Shanghai airport associate said to China Daily, "After they took off their huge hats and big sunglasses following our request, we saw them looking different, with bandages and stitches here and there."

"We had to compare their uncorrected parts with their photos very carefully," he added.

The newspaper was also critical of Korea's plastic surgery frenzy. It said that South Korea is rapidly becoming the home of plastic surgery, and people there have the most cosmetic procedures per capita, according to global figures released last year by the International Society of Aesthetic Plastic Surgeons.

"Indeed, one in every 77 people in South Korea now goes under the knife or needle in a bid to improve their looks," it said.

The paper also stated, "Surprisingly, 20 percent of Seoulresiding women aged between 19 and 49 have gotten plastic surgery. The most popular one is double eyelid surgery, which can make women have larger eyes like those of western people."

Lastly, it said, "Sometimes patients come in with celebrities' pictures saying that they want their eyes and noses to look like westerners'."



우대수익률 기회

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